

Distance Learning Programme

UPPCS Mains

International Relations





INTERNATIONAL RELATIONS

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GEO POLITICS & INDIA'S STRATEGIC INTERESTS

We live in an interactive world which is connected with other countries at various levels in an intricate relationship, which becomes a complicated matrix of several issues and all the stakeholders in the matrix are engaged in an action and reaction exercises. With the advent of the forces of globalization and communication revolution spearheaded by technology, we are so deeply connected on the global level with various countries that any development, political, economic or strategic development taking place in one part of the world necessarily casts its shadow over other parts of the world and its ramifications are felt both at the regional level as well as at the global level.

India too, is no exception to this phenomenon and more importantly because India is now a significant economic, military and political power both at the regional level as well as at the global level, it cannot afford to miss accounting the ramifications of such events into its foreign policy. This becomes more imperative because the foreign policy is the instrument by which India seeks to protect its interests and achieve its goals at the global level, therefore all types of developments taking place around the world which have a significant bearing over India's interests and all areas in which India seeks to interact with the world, find a place in our study of international affairs. The principal areas which form the nucleus of our foreign policy in the contemporary scenario are national security, economic development through trade and technology, and finally the larger question of India's stand on various issues like climate change, sustainable development and international order which constitutes an organic and a syncretistic relation with the issues of national security and trade.

India's External Security

Areas of Concern

India has had a very gruesome past in the sense that throughout the course of its history it had to suffer numerous foreign invasions out of which it had suffered a lot. Even after independence, within a span of 50 years, it had to fight three full scale wars against Pakistan and one against China. Further, it has been fighting a prolonged proxy war waged by the jihadi terrorists sponsored by Pakistan for almost 30 years now. This bitter experience of fighting an endless struggle to preserve the integrity of our land has made us very sensitive towards preserving our national security at any cost. The Indian nuclear programme is nothing but a move to attain self dependence in matters of national security and the same is also reflected explicitly in our foreign policy stratagems. We also talk about building a worldwide consensus against terrorism or engaging in regional and global defence cooperation agreements with other powers at the regional and global levels. In order to understand the dynamics of the issue of national security, it would be prudent to evaluate it in relation to its context which becomes clearer by exploring the prominent themes which have acquired centre-stage in our foreign policy vis-à-vis national security.



Prominent Themes

The China Dimension

There are certain themes that re-occur in the Indian for eign policy when viewed in the context of national security. Foremost, is to view China as an actual or a potential strategic rival or competitor of India. The India-China conflict of 1962 and the border dispute have strengthened the view that the two big and strong neighbours are destined to be rivals, at least periodically. Pakistan's hostility, including the dispute over Jammu and Kashmir, India's tilt towards the Soviet Union during Cold War, including the 1971 Treaty of Friendship with it, and the entire gamut of Indo-US relations have always had and continue to have a Chinese dimension. The emergence of China as a great military and economic power would have major repercussions for the security of Asia and the Pacific including the Indian Ocean region. The resulting dis-balancing and rebalancing of regional equations would surely impinge on Indian sovereignty and security.

Given the fact that both India and China are nuclear powers, any armed confrontation between the two countries is not only undesirable but also disastrous. Therefore the challenge is to deal with China diplomatically and in order to achieve this, it is important to closely observe China's foreign policy and its impact at the regional level as well as at the global level. In this context, China's moves in the South China Sea or its policy vis-àvis Tibet, Taiwan or for that matter towards Russia or Pakistan also becomes important for India.

The Pakistan Dimension

Relations with Pakistan, is another area which consume a good deal of the time and energy of Indian foreign policy planners and analysts. A stable, secure and preferably a democratic Pakistan is in India's greater national interest than a Pakistan which is fundamentalist, authoritarian and on a collision course with India. India has been always striving for bringing Pakistan on board for engagement in terms of expanding the gamut of Indo-Pak relations, but Pakistan has always insisted on hyphenation of relations with India vis-à-vis the Kashmir iss<mark>ue. Moreover, the foreign pol</mark>icy of Pakistan is opportunistic and manipulative through which, it tries to create a strategic space for itself in the international arena, which has brought trouble for India on several occasions. Pakistan's membership in the Western alliance system had brought the Cold War to the doorsteps of India during the Soviet invasion of Afghanistan when Pakistan was used by the US as a bulwark against Soviet expansionism and its search for 'warm waters' in the Arabian Sea/Indian Ocean region. Further, following 9/11, Pakistan has again emerged as a frontline state in the war waged by the US against terrorism on a global scale. Besides, the West in general is looking at Pakistan as a gateway to the grand opening that awaits the exploitation of natural gas and other minerals in the Central Asian region. Further, Pakistan's intransigence and pursuit of adversarial relationship with India are also impinging on our national un<mark>ity mainly on communal gr</mark>ounds. Pakistan is the direct source of many of India's domestic problems, including trans-border terrorism, communal disharmony, illegal drug trafficking, arms smuggling, proliferation of organized crimes, etc.

Similar to China, Pakistan is also a nuclear weapons state and so going by the same logic, a direct full-fledged armed confrontation with Pakistan is also better avoided. In this light, the diplomatic angle becomes important, even in case of Pakistan and hence the need to analyse its diplomatic moves and strategies on various regional as well as global



issues becomes important. In this context, it is important to not only study and respond to its relations with China but also its relations with the OIC, SCO and even the US becomes vital.

The Sino-Pakistan Dimension

Thirdly, the Sino-Pakistan axis is another area, which has troubled Indian policy makers in a big way. China has been an 'all weather friend' for Pakistan, particularly in the light of the policy of containment of India pursued by the Chinese by hyphenating India with a much smaller country like Pakistan. India, which is several times the size of Pakistan in terms of territory, population, GNP, and military preparedness, the externally induced idea of 'parity' is seen as a bid to stymie India's great power claim. China's clandestine support to Pakistan's nuclear and missile development programmes is an evidence of anti-India axis of their relationship. It is the play of extraneous powers and forces, particularly the Chinese, which are intent on creating a sort of military 'parity' between Pakistan and India, which has remained a matter of great concern to Indian foreign policy planners and leaders.

The Terror Dimension

Fourthly, we have the aspect of terrorism, primarily because most of the problem of terrorism in India is externally sponsored and hence international terrorism, particularly Jihadi terrorism, which has its relations with India because of the Kashmir issue and the larger issue of a sizeable Muslim population in India is a cause for concern. Owing to these reasons any extremist development in the region extending from Pakistan to Turkey and Israel in the middle-east, having overtones of Jihadism and Islamization causes concern to India, mainly because of its bearing on the internal security and larger societal peace in the country. Moreover, Pakistan has always been ready to take advantage of any form of communal volatility within India or any extreme action of our security forces, to score points on Kashmir and minority rights, to the detriment of India.

Challenges

India's external security should be seen in the larger context of India's strategic interests. The two have a mutually reinforcing relationship. The strategic interests of any country are a corollary to its external security engagements. Nations in the past have used colonialism to strengthen their strategic interests. However, in the current global security architecture, colonialism has b<mark>een replaced by various sec</mark>urity engagements and defence cooperation agreements. Nations across the globe have been working towards ensuring their presence and extending their sphere of influence beyond their national borders, sometimes to create a buffer ar<mark>rangement to augment their</mark> national security and on other times simply because such arrangements would be instrumental in improving their trade engagements and consolidating their political and military influence. Most of the time, such arrangements tilt the balance of power in favour of one country, particularly at the regional level, which is most of the time used to apply pressure to extract concessions from the other party. Therefore, such tendencies normally alarm other regional and global powers and prompt them to create counter-arrangements so as to re-establish the balance of power. The Indian boundaries including the Indian Ocean region is no exception to this phenomenon.



The Chinese Challenge

Recent years have not been very positive regarding India-China relations. China's economic corridor through Pakistan, India's invitations by Uighur, Falun Gong and Tibetan activists, expulsion of Chinese journalists from Mumbai, the Chinese block on Nuclear Suppliers Group membership for India, and the rumblings over the South China Sea, Chinese protection to Pakistani terrorists at the UN and most recently the Doklam impasse all added to tensions between the two countries. China continues to oppose India's entry into the Nuclear Suppliers Group (NSG), pending a consensus on the membership of the nuclear weapon states that have not signed the Nuclear Non-proliferation Treaty (NPT). Although the Modi-Xi summit rolled out some positive messages, yet the Chinese puzzle is still not decoded.

String of Pearls

One of India's growing concerns in the last decade or so is China's ever-expanding sphere of geopolitical influence in the Indian Ocean. More than 85% of oil and oil products bound for China cross the Indian Ocean, and pass through the Strait of Malacca, in which India has a strong presence. Securing the sea lines of communication (SLOCs) thus becomes critical for China. As foreign oil becomes critical to China's needs, it is building strategic relationships and developing a capability to establish a forward presence along the SLOCs that connect China to the Middle East.

As per American analysts, the China's geopolitical strategy of increasing its geopolitical influence or military presence to secure each "pearl" (oil reserves) in this string which stretches from Chinese mainland to Port Sudan, is called as the "String of Pearls". It refers to the network of Chinese military and commercial facilities and relationships along its sea lines of communication, running through several major maritime choke points such as the Strait of Mandeb, the Strait of Malacca, the Strait of Hormuz, and the Lombok Strait as well as other strategic maritime centres in Pakistan, Sri Lanka, Bangladesh, the Maldives, and Somalia.

In other words, with its financial and technical support, China is helping several littoral countries of the Indian Ocean region build or further develop port facilities, such as Gwadar port in Balochistan of Pakistan; Hambantota port in northern Sri Lanka; Chittagong port of Bangladesh; and port and communication facilities in Myanmar. According to India, these facilities have the potential for military use and may be used by China to harm India economically as well as militarily.

With China's growing political and economic ties with India's neighbours, India is wary of being encircled by a growing ring of Chinese power and influence. The increasing Chinese engagement in South Asia, South-East Asia and Africa and ongoing Chinese policies in South Asia involves deeper security and strategic challenges for India:

- On India's western flank, Pakistan and China have long developed strategic partnership.
- China provides huge technological and military assistance to Pakistan. The China's new project China-Pakistan Economic Corridor (CPEC), to create access to the Arabian Sea from Xinjiang to the Pakistani port of Gwadar via Gilgit-Baltistan forms the bedrock of China's South Asia strategy. As per India it is a threat to Indian sovereignty because it runs through Pakistan-occupied Kashmir.
- To India's east, China has close military relations with the military rulers of Myanmar and has an eye on its natural resources. It is further gaining access to the Bay of Bengal via rail, highway and pipeline, linking it to the deep-water port being built at Kyaukpyu in Myanmar.



- In the north, while China has the dominant presence in Tibet, it has made significant political and infrastructural (Xining-Lhasa rail link is progressing towards Nepal) inroads in Nepal. Chinese influence in Nepal has grown up in recent years with the rise of
- Maoists in Nepal. Maoist leaders in Nepal are highly critical of India in the backdrop of blockade of essential supplies created by India and has shown a keen interest in developing close relations with China.
- To India's south, China is forging closer ties with Sri Lanka. It has built a new harbour in Hambantota and modernized Colombo port for Sri Lanka.
- Another regional area of strategic competition between the two is Africa. Though, India has enjoyed close relations with the African countries during the Cold War, China has gained ample influence in the region in last 20 years or so. Besides capturing African markets, Chinese investment and technological support in Africa has risen considerably in recent years. China has developed a military port located in the Diibouti in the horn of Africa. The facility is expected to significantly increase China's power projection capabilities in the Horn of Africa and the Indian ocean region. It has also taken steps to exploit natural resources (oil) from Africa. However, though, China appears to have gained edge economically viz-a-viz India in Africa. India still enjoys soft power advantage in the form of goodwill in Africa.

Water Disputes with China

While China is already invo<mark>lved in several water-sharin</mark>g disputes with countries like Laos, Cambodia, Thailand and Vietnam over the Mekong River, the main bone of contention between India and China is China's plans to build several dams on the upper reaches of the Brahmaputra (known as Tsangpo in China). China's projects on the Brahmaputra include \$1.5 billion Zangmu Hydropower Station project designed to generate 2.5 billion kilowatt hours of electricity annually. At the same time, China is building three more dams at Dagu, Jiacha, and Jeixu (small-scale projects) which are under construction. In 2015, China inaugurated the Zam Hydropower Station, largest in Tibet and the highest dam built on the Brahmaputra.

China has a unique, exclusivist policy when it comes to sharing natural resources. It follows a doctrine that believe<mark>s in exclusive use of resourc</mark>es that originate from its soil. China's projects on Brahmaputra involve the construction of hydroelectric power projects on the river as well as the other, more ambitious project, envisages the diversion of its waters to the arid north. As per Chinese position all these are run-of-the-river projects that involve no storage or diversion and that they will not only affect the river's downstream flow into northeast India, but it can also generate floods and droughts in the lower riparian states of India which will be anthropogenic in the origin. India, however contends that, the Brahmaputra, which originates as the Tsangpo in Tibet, is one of the major water resources in India's north-east, especially as a source for irrigation and industry. Chinese hydroelectricity projects can lead to "a decrease in the flow of the river water" and "the destruction of the Himalayan ecosystem."

China is not concerned about international law. There are definite provisions in international law about the rights of a lower riparian region, but China is not bothered about India's rights. Though China is willing to share details of Brahmaputra flows with India, but has given no indication of how much Brahmaputra water it will control because it is planning to build over 200 dams and reservoirs on this river and its tributaries. There is also a suspicion that in the years to come, China might start dictating India about Pakistan's rights as a lower riparian region of the Indus river's waters.



OBOR Initiative

At the BRF (Belt and Road Forum) summit held in May 2017, Beijing, the Chinese President Xi Jinping proposed five principles of peaceful co-existence or Panchsheel as the mantra for advancing the Belt and Road Initiative (B&RI), and as a vehicle for achieving sustainable globalization on the lines of open borders in the US and parts of Europe. President Xi has said, "We are ready to share the experience of development with other countries. We have no intention to interfere in other countries' internal affairs, export our own social system or model of development, or impose our own will on others." In this regard, India's decision to boycott the BRF, is a mark of protest against the infringement of its sovereignty by the China-Pakistan Economic Corridor (CPEC) that passes through Pakistan-occupied Kashmir (PoK). The matter becomes of more concern as other countries such as Japan and Vietnam, which continue to have serious maritime disputes with China, still sent high-level official delegations to the BRF.

- Potential Benefits of OBOR: OBOR envisages developing quality and appropriate infrastructure on the westward land route through Central Asia and Europe, and the southern maritime route through Southeast Asia, on to South Asia, Africa and Europe. This will boost economic development, facilitate trade and investment and create immense socio-economic opportunities in the region. Last couple of years have seen a rise of nationalist politics and bilateralism and preferential trade agreements which can have disastrous consequences for international trade and commerce. The OBOR presents an alternative geo-economic world view which has the potential to drive the world trade and avoid the well known drawbacks of preferential trade agreements.
- Potential Benefits for India: For rapid economic transformation, India needs huge amount of capital as well as expertise. Joining the OBOR will enable India to get both by tapping into the resources which will become available. From economic point of view India can reap many benefits on account of access to energy resources, connectivity to the proposed Asia-Europe infrastructure of transport and industrial corridors and a potential market for many of its exports. From a geostrategic perspective, involvement in OBOR could help India to implement its own Spice Route and Mausam projects more effectively. Integration of such initiatives with the BRF will not only optimize both economic and strategic gains, but also enable India to become a key stakeholder in the whole process.
- Issues and Concerns for India: The MEA had issued a comprehensive statement on its objections to the OBOR/BRI (The Belt and Road Initiative). The corridor includes projects in land belonging to India; India's main objection is on the principle that the BRI includes projects in the China-Pakistan Economic Corridor (CPEC) that are located in the Pakistan-occupied Kashmir's Gilgit Baltistan, including the Diamer Bhasha Dam, 180-MW hydel power projects, and more expressways and economic zones along the Karakoram Highway built in the 1970s. This violates the territorial integrity of India. Further, the projects could push smaller countries on the road into a crushing debt cycle, destroy the ecology and disrupt local communities. All of India's neighbours, with the exception of Bhutan, have entered the BRI, and India's concerns have been heightened by the growing presence of China in Nepal, Bangladesh, Sri Lanka and the Maldives. However, India didn't explicitly say it would not join the BRI, leaving room for speculation that there is a place for talks on the issue, if the Chinese are willing to discuss an alternate course of action.
- Chinese Response to India's Concerns: On the issue of lack of transparency in the project, China's reply has been that none of the other countries in the project has



complained about lack of transparency. Regarding the objection on CPEC, Chinese leadership argued that it is an economic initiative and is not relevant to political dispute between India and Pakistan. It further reiterated that the CPEC initiative doesn't reflect China's position on the Kashmir issue. China also pointed out that India is a co-founder of the Asian Infrastructure Investment Bank, which will support many BRI projects, and also remains committed to the Bangladesh, China, India, Myanmar economic corridor, which connects to the BRI. India has alleged that the reply has been vague and full of rhetoric without any concrete willingness to alleviate the concerns raised by India.

What Should be India's Response?: India's long-term response to the BRI can be three-fold. One, Delhi must impart greater energy and urgency to its own internal and regional integration projects. For the gap between India's rhetoric on connectivity and performance on the ground has been too wide. Two, Delhi must match its criticism of Chinese political and financial terms for connectivity projects with the demonstration of a different Indian model that is less hegemony and more in sync with global norms. Three, Delhi must continue to press Beijing for a sustained dialogue on connectivity that will not only minimise the current contentions, but also address the deeper questions on territorial sovereignty and regional rivalry.

South China Sea Issue and India

The South China Sea dispu<mark>tes involve both island and m</mark>aritime claims among several sovereign states within the region, namely Brunei, China, Taiwan, Malaysia, Indonesia, the Philippines, and Vietnam. China claims sovereignty over the South China Sea and advocates that the dispute should be settled among the various claimant states and is strictly against any internation alization of the dispute. The reason why China is trying to assert its might and intimidate other claimants in the area is because the South China Sea is an area which is very rich in oil deposits and various other mineral resources which are of immense value for the industrialized China and the exporter China. China estimates that the South China Sea may contain 17.7 billion tons of crude oil (compared to Kuwait with 13 billion tons). Further an estimated US\$5 trillion worth of global trade passes through the South China Sea and many non-claimant states want the South China Sea to remain international waters

China demarcated a U shape area over the South China sea by drawing a 9 dash line and claimed its sovereign rights over the area since 2000 years ago. The Permanent Court of Arbitration (PCA), ruled that China's historical claim over the demarcated area has no legal basis and ruled in favour of the Philippines. Beijing has chosen to ignore this verdict. With the US under President Donald Trump giving mixed signals about its commitment to the region, strategic uncertainties in the region are growing. It is against this backdrop that India is looking to make stronger inroads into ASEAN heartland.

Indian Presence in the So<mark>uth China Sea:</mark> There is a lot</mark> of demand for Indian presence in the region, which most regional states view as a countering force for China's increasing hegemony. India is also an active participant in several regional forums like the Asia-Europe Meeting (ASEM), East Asia Summit (EAS), ASEAN Regional Forum (ARF), ASEAN Defence Ministers' Meeting + (ADMM+) and Expanded ASEAN Maritime Forum (EAMF). But India is yet to give a signal that it remains committed to a long-term strategic presence in the region.

In September 2011, shortly after the PRC and Vietnam signed an agreement seeking to contain a dispute over the South China Sea, India's state-run explorer, Oil and Natural Gas Corporation (ONGC) said that its overseas investment arm, ONGC Videsh Limited, had



signed a three-year agreement with PetroVietnam for developing long-term cooperation in the oil sector, and that it had accepted Vietnam's offer of exploration in certain specified blocks in the South China Sea. In response, PRC Foreign Ministry, without referring to India by name, stated that China enjoys indisputable sovereignty over the South China Sea and the island and on the basis of this China is ready to engage in peaceful negotiations and friendly consultations to peacefully solve the disputes over territorial sovereignty and maritime rights so as to positively contribute to peace and tranquillity in the South China Sea area.

Reasons Demanding India's Presence in the South China Sea: India's economic, maritime and strategic interest demands maintaining freedom of passage for maritime trade through the South China Sea. This compels India to get involved in South China Sea dispute. South China Sea sees a heavy percentage of world trade that passes through Malacca Strait a part of South China Sea. India's 55% of trade passes through Strait of Malacca, which opens into the South China Sea. If China controls the region, it will upset the global trade practices and countries like India will directly get affected. Any belligerent action by China can hamper India's foreign trade passing through that region. Therefore, India has a stake in ensuring freedom of navigation in the

There are few other factors that compel India to play a major role in South China Sea dispute. One is in the wake of weakening of the American alliance in Asia. US wants India to play a role in regional security issues such as South China Sea dispute. Second, China's ever growing ambitions have a chilling effect on India's security architecture and New Delhi likes to counter China by getting involved in South China Sea dispute. Then, since India is a responsible regional power and is interested in maintaining peace in its backyard, India has to play an important role both in resolving the dispute as well as making sure that the conflict does not escalate. In such a context, India along with the U.S. and other powers is geared to play a major role as security provider in the region. There is also an opinion, which looks at India's intervention in the area as a part of the 'offensive-defensive policy' which New Delhi is pursuing to deter China to maintain a hands off policy in India's neighbourhood particularly in the context of the 'String of Pearls' project of the Chinese.

Way Forward: As of now, India's official position is – that the South China Sea dispute should not be "internationalized" and all the parties concerned should resolve it amicably. However, while maintaining this position, India should move forward with the engagements which it is having with countries like Vietnam and other countries of the area. At the same time, India as a responsible regional power should try to engage with the countries of the region and create an atmosphere so that the disputes is resolved in the best interests of the claimant nations as well as those nations who have only a maritime interest and hence want it to remain as international waters.

Border Incursions

Because of the several unresolved territorial claims, border incursions/intrusions by China, there has been a limited opportunity to improve relations between India and China. Some of the recent incidents include:

- In April, 2014, a series of Chinese intrusions were reported, including the prolonged one by People's Liberation Army (PLA) troops in the Depsang valley in Ladakh, resulting in a bitter face off between the Indian and Chinese forces.
- In November, 2016, Chinese and Indian soldiers were engaged in a major stand-off in Ladakh after Chinese troops stopped work on the construction of an irrigation canal being built under the rural development or MNREGA scheme, in the Demchok sector, located 250 km east of Leh.



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INFORMATION & COMMUNICATION TECHNOLOGY

Introduction

Information and Communication Technology, referred in short as ICT, is an umbrella term that includes all technologies for the manipulation and communication of information. It has been commonly adopted in present society due to increasing awareness. Information technology has revolutionized educational, agricultural, manufacturing, medicine, business, and governance sector in India and other parts of the world.

Information Technology (IT) is closely linked to ICT, especially in educational and political issues. ICT covers various forms of media like television, radio, mobile phones, land telephones, cameras etc.

India has shown tremendous growth in the field of Information and Communication Technology (ICT). The technology has become handy in providing various services at the doorstep of the person living in the remotest of the areas for example ICT has enhanced efficient delivery of banking services and plugged leakages in public distribution system. The country has gained edge worldwide in this field, leveraging its large pool of skilled manpower in ICT because of which India has become a global hub of outsourcing of software and IT enabled services. Presently the country has a daunting task of skilling the nitty-gritty of ICT to the vast population living in rural areas so that they can reap the benefits provided by the technology.

Application of ICT

Telemedicine

The World Health Organization (WHO) defines Telemedicine as, "The delivery of health care services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities."

Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education and training, public health and health administration.

Advantages of Telemedicine

- Increased Access: Patients in rural areas can obtain specialty services more easily. Similarly, patients who live in federally designated underserved areas have increased access to primary, dental and mental health care.
- **Convenience:** Patients do not have to take time away from work for an appointment. There is also no travel time or associated expenses, such as paying for gas or child care.



- Encourage Healthy Lifestyle Choices: Telemedicine allows providers to encourage their patients' healthy lifestyle choices, such as smoking cessation.
- Reduced Cancellations or No-shows: Because of its convenience for patients, telemedicine can reduce the number of cancellations or no-shows. Providers can reach out prior to or at the appointment time if the patient forgot about the appointment.

Disadvantages of Telemedicine

- **Technical Training and Equipment:** Providers need to be trained on how to use telemedicine equipment. There are also the associated costs of the equipment, such as integrated telemedicine carts and encounter management software, to consider. The startup cost of implementing telemedicine may be especially prohibitive to rural facilities.
- Licensing Issues: Certain states may require providers who practice telemedicine across state lines have a valid license in the state where the patient is located.
- Inability to Prescribe Medications: Many states generally do not allow online prescribing (not to be confused with e-prescribing) without an established relationship between the physician and patient. A physical examination or evaluation may be required before a physician can write a prescription for a patient, but there are inconsistencies in state laws as to what constitutes a physical examination.

Significance of Telemedicine in India

In India, though the healthcare sector is seeing a giant leap in providing services to the consumers, it has still not been able to expand its market in rural areas. Around 75 percent of the rural population is struggling with insufficient infrastructure and technological awareness. In such a scenario, where penetration of healthcare services hardly lives up to the mark, the concept of telemedicine makes so much sense. Access to qualified healthcare providers, specialized consultation, timely diagnosis, accurate prognosis, effective course of treatment, and lots more can benefit rural folk and bring down the disparity in healthcare offerings between the rural and urban areas. In recent years, there have been some positive initiatives from the state and central government in this regard.

Middle class in urban India, who has access to world-class hospitals and treatment facilities, but is pressed for time, has plenty to gain from telemedicine. Through real-time interactions via video-conferencing solutions, that capture patient and disease-related information through dictation, photos, videos, radiology, etc., for later reference, patients can reap the benefits of an actual visit to the doctor without having to do so. Not just consultation and treatment, many other services can be fulfilled through telemedicine, which brings together the best of both worlds – medicine and telecommunication. Dissemination of specialized knowledge among the medical community through advanced networks, technology enabled peer-to-peer reviews, emergency medical consultations during an epidemic or crises, and many others can be achieved with digital healthcare facilities.

Telemedicine practices and solutions aren't limited to general medicine or those that need a physician. The efforts by some of the health care majors in the country have borne fruit in specialties such as paediatrics, orthopaedics, dermatology, radiology, neurology, oncology, HIV, and and state governments, their contributed a great deal to recognized field.



Way Forward

According to a study conducted by Assocham, India's telemedicine market, which has been growing at a compounded annual growth rate (CAGR) of over 20 percent, is slated to cross \$32 million mark by 2020. The big names aside, a quick look at most new entrants or startups functioning in the digital healthcare space will tell you how lucrative the space is. With most of them having received at least their seed or Series A capital from investment majors from India and around the globe, the foray into this space seems bright and promising. From online appointment booking to tele-consultation, patient management systems, online pharmacies, in-home health care, genome-focused R&D, consultation in alternate medicine, and cloud-based health information systems, they cater to a wide range of healthcare needs of the young and the old.

Other opportunities that can be tapped include solutions that bring down consultation time, cut down costs, employ digitalization to maintain patient records, use smart devices and health monitors for quick and effective diagnosis, use genomics for personalized treatment, and employ mobile apps for health education. The current technology penetration, growing population, advancing economy, and accelerating healthcare industry are all responsible for the increased demand in digital healthcare. The momentum being gained in the sector is indeed a reckoning that the time's right and bright for India to embark on a journey in the direction of telemedicine. It's time to plug the holes with newage models and solutions that bring quality and affordable healthcare to the forefront through seamless technologies.

Tele-education

Tele-education can be defined as "education in which students receive instruction over the Internet, from a video, etc., instead of going to school". Also known as E-learning, it "comprises all forms of electronically supported learning and teaching. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process.

Advantages of Tele-education

- Interactive: With digital education, classroom teachings have become more fun and interactive. Children tend to be more attentive. They are not only listening, but also viewing it on the screen which makes their learning all the more effective. Here, sounds and visuals go hand-in-hand, which is easy for the child to grasp.
- Attention to Details: Interactive online presentations or practical sessions in educational content through interactive screen time help the students to pay more attention to details which enable them to complete their activities on their own.
- Quick Completion: Using tabs, laptops or notepads, instead of pens and pencils, motivates children to complete their tasks quickly.
- **Vocabulary:** Active online screen time helps students develop language skills. By reading e-books or accessing study materials online, they learn new words and expand their vocabulary.
- Learn at One's Own Pace: Many a times, a student he sitates to ask a question to his teacher in classroom training. But with digital education, even if he does not understand anything at one go, he can attend the recorded sessions to clear his doubts. Technology enables a student to learn at his own pace.



- **User-friendly:** The best thing about digital education is that it is user-friendly. You can very well access your curriculum wherever you are. You can learn on the go. Even if you miss certain classes, you can access the class notes and download files from the school website.
- Learning by Self: Also, nowadays, online study materials are easily available. Even if the entire education system is not digitalized, yet students can leverage the power of digital content depending upon their capabilities. So students, can access exclusive online study modules of various subjects, which can help them to enhance their knowledge even without a teacher.
- External Guidance: With online education, students can even further connect with distant counsellors and faculty to seek guidance or resolve queries.

Disadvantages of Tele-education

- **Expensive:** First of all, it is expensive. That is why we see that most International schools and schools that have digital education are far more expensive than the regular schools.
- Infrastructure: To have digital education means, you need to have a proper infrastructure not only in schools, but also at homes, particularly affordable broadband.
- **No Fixed Schedule:** Online learning requires much better management and rigid schedules, whereas in traditional classroom training, everything is as per a fixed schedule.
- Reduces Creative Abilities: Getting all answers on the net easily also reduces the children's own creative abilities.
- Lazy Approach to Studies: This may lead to poor study habits and can develop in children a lazy attitude. Digital education can also make children forget the basic way of studying. Even for simple problems and homework, they are used to seeking help from the net.

EDUSAT

- EDUSAT is a geosynchronous satellite meant for distant classroom education from school level to higher education. This was the first dedicated "Educational Satellite" to provide the country with satellite based two way communication to classroom for delivering educational materials.
- EDUSAT had manifold objectives like: supplement the curriculum-based teaching, imparting effective teacher training, providing access to quality resource persons and new technologies, and taking education to every nook and corner of India.
- EDUSAT provided connectivity to schools, colleges and higher levels of education and also supported non-formal education including development communication.
- The networks implemented under EDUSAT programme comprised of two types of terminals, namely, Satellite Interactive Terminals (SITs) and Receive Only Terminals (ROTs).
- The EDUSAT (GSAT-3) satellite provided its services till September-2010, supporting Tele-education, Telemedicine and Village Resource Centres (VRC) projects of ISRO. After its decommissioning, the traffic of Tele-education networks was migrated to other ISRO satellites such as INSAT-4CR and those in Ext. C-band networks were migrated to INSAT-3A, INSAT-3C and GSAT-12. Migration of remaining few networks is in the pipeline.



ICT in Agriculture

In the major developing economies, the agriculture sector is facing major challenges of enhancing production in a situation of dwindling natural resources necessary for production; ITC plays an important role in stating these challenges. The benefits of ICT in agriculture include updated information on agriculture related issues such as new varieties release, new threats, weather forecast, pricing control, warning alerts, etc. However, market information on prices for commodities are live intimidated with the use of ICT.

- **Agrisnet:** It is a comprehensive web portal to broadcast relevant information to farmers, which was initiated and funded by the Ministry of Agriculture, Government of India. It has the following goals:
 - Providing information to the farmers on quality of the inputs and its availability
 - Disseminating information of various government schemes and recommending fertilizers after soil testing
 - Providing information on latest technologies for increasing productivity in agriculture.
- **Digital Mandi:** Digital Mandi is an electronic trading platform for facilitating farmers and traders to sell and procure agricultural produce beyond the geographical and temporal limitations effortlessly. Various financial institutions also participate in online trading of agricultural output to remove cash crisis.
- aAQUA (Almost All Questions Answered): aAQUA is a multilingual online system that facilitates farmers by advising them, solving their problems and answering their questions related to agriculture. Farmers have to register on aAQUA platform online or telephonically. After that, they can post their queries on the portal, for which they get answers shortly.

ICT in e-Governance

e-Governance is the application of Information and Communication Technology (ICT) for delivering government services, exchange of information communication transactions, integration of various stand-alone systems and services between government to citizen, government to business, government to government, government to employees, etc.

- The goal of Government-to-Citizens (G2C) is to offer a variety of ICT services to citizens in an efficient and economical manner, and to strengthen the relationship between government and citizens by using technology. The G2C framework allows citizens to message directly to public administrators for any issues. Using this framework, Mundane services such as change of name or address, applying for services or grants, or transferring existing services are more convenient.
- Government-to-Business (G2B) is the e-governance model that refers to government providing services or information to business organization. Government uses B2G model website to approach business organizations. Such websites support auctions, tenders and application submission functionalities.
- Government-to-Employees (G2E) is the e-governance framework which uses various online tools, sources, and articles that help employees maintain communication with the government and their companies. E-governance with employees allows learning technology in one simple place through online system. The benefits of government to employee expansion include E-payroll. E-benefits, E-training, etc.



ICT in e-Banking

- Traditional banking system was a very tedious process. ICT in Banking helps customer to open accounts, check balance, money transaction, pay bills, and print statements through online. Most of the banks offer online banking and some banks offer Internet only banking.
- Banking process can be performed 24 hours without any time limitations. The online bank reduces the work of man, no need of standing in queue, it is a time consuming process.
- e-Banking is the future of banking system; e-banking will involve new products and services that were not feasible in traditional banking models. The Internet banking also became more workable for the purpose of e-banking systems.

ICT in e-Commerce

- e-Commerce is a transaction of buying and selling of goods and services through a network that is the internet. e-Commerce includes internet marketing, chain management, transmitting of data and funds, online shopping etc.
- e-Tail is another source used for the transaction process in online shopping. Online shopping includes purchase of books, music, in the form of digital distribution. These transactions may occur between business to business, consumer to consumer, business to consumer and vice versa. The benefits of e-commerce are easy accessibility, availability of goods and services, accessing speed, anywhere access, shipping, etc. This system grows mainly for its secure e-commerce.

Supercomputers

A supercomputer is a computer that performs at or near the currently highest operational rate for computers. Traditionally, supercomputers have been used for scientific and engineering applications that must handle very large databases or do a great amount of computation (or both).

Use of Supercomputers

Supercomputers play an important role in the field of computational science, and are used for a wide range of computationally intensive tasks in various fields, including quantum mechanics, weather forecasting, climate research, oil and gas exploration, molecular modelling (computing the structures and properties of chemical compounds, biological macromolecules, polymers, and crystals), and physical simulations (such as simulations of the early moments of the universe, airplane and spacecraft aerodynamics, the detonation of nuclear weapons, and nuclear fusion). Throughout their history, they have been essential in the field of cryptanalysis.

Advantages of Supercomputer

■ **Decreasing Processing Time:** The primary advantage that supercomputers offer is decreased processing time. Computer speed is commonly measured in "floating point operations," or "FLOPS." Average home computers can perform up to a hundred billion



- of these operations per second, or 100 "gigaflops." Supercomputers, however, are tens of thousands of times faster, meaning that calculations that would take your home computer hours or days can be solved by a supercomputer in a matter of seconds.
- Solving New Problems: The sheer processing power of supercomputers means that they can be used to do things that ordinary computers simply couldn't handle. For example, weather forecasting is highly complex and requires extremely sophisticated algorithms. Only supercomputers have the ability to perform these calculations in a timely fashion. Supercomputers have also permitted great strides in filmmaking and special effects. Pixar uses a supercomputer with more than 1,000 individual CPUs; even using this computer, each frame of their movies can take up to 90 hours to render.
- Lowering Costs: By decreasing the amount of time needed to complete processing tasks, supercomputers can lower costs, saving money in the long run through increased efficiency. For this reason, some companies specialize in renting supercomputers to clients who don't need a full-time computer, but do need occasional bursts of processing power. Supercomputers can also lower costs by allowing engineers to create computer simulations that remove the need for expensive, high-precision physical models or testing environments.
- Improving Safety: Beyond CGI and scientific applications, supercomputers can also help to make the world a safer place. Simulations or tests that would be difficult or extremely dangerous in the real world can be performed on a supercomputer instead. For example, nuclear weapons must be tested to make sure that they function. Without supercomputers, the testing process would have to involve detonating a nuclear bomb; super computers allow engineers to obtain the same results without running the risks of an actual detonation.

Disadvantages of a Supercomputer

- Storage and Bandwidth: Researchers use supercomputers to do work with enormous sets of data which they process at a high rate while generating increasingly large amounts of additional data, such as when scientists work on weather forecasting or simulate nuclear bomb detonations. A disadvantage is that supercomputers require massive external storage drives whose bandwidth is fast enough to accommodate the data being analysed and produced. If storage and bandwidth can't keep up with the data flow, the supercomputer will not be able to work at its full capacity.
- Maintenance and Support: Supercomputer systems are built by connecting multiple processing units and can require large rooms to store them. The large number of processors give off greater heat than standard computers, which is a disadvantage because they require a cooling infrastructure. The supercomputer also needs software to monitor how it is used and to detect failures, and a larger than typical support staff to administer and support the computer, its external storage and high-speed network.
- Cost: A supercomputer that can simulate the location of potential oil deposits or the progress of various permutations of a hurricane system can cost a lot of money, which could be a disadvantage if your organization must work with a limited budget. For example, an IBM Watson supercomputer costs about \$3 million, according to Computerworld magazine.



Distance Learning Programme

UPPCS Mains

World History





WORLD HISTORY

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DECOLONISATION AND NEW IMPERIALISM

Decolonization is a process which is the reverse of colonization i.e. to say that it denotes the withdrawal of the colonial powers from their colonies. This withdrawal is not partial or sublime, but real territorial withdrawal so that control of political and economic power is shifted from the colonial powers to the native inhabitants.

Decolonization

Historically speaking, decolonization occurred in three major phases.

- The first phase was in the late eighteenth century and early 19th century, starting with the creation of the United States and ending with the freedom of Spanish and Portuguese colonies in the American continent.
- The second phase occurred in the aftermath of World War I, made possible by the collapse of the Russian, German, Habsburg, and Ottoman Empires.
- The third phase occurred after the end of World War-II and the rise of the US and USSR as the only two superpowers.

Causes of Decolonization

There were several factors that encouraged decolonization. Some of the important ones were the American Revolution, the French Revolution and the Napoleonic wars.

The American Revolution

The rebellion by the Thirteen Colonies of North America against the Great Britain and their eventual victory in the form of establishing USA inspired a wave of revolutions in other parts of the continent. The American war of independence demonstrated that the people of the colony had every right to be free from the mother country and the same can be achieved by a united effort.

The French Revolution (1789-1799)

The French Revolution ushered an era of radical change in French as well as European society. Driven by the Enlightenment principles of democracy, citizenship, and inalienable rights of people, common people fought for freedom and equality.

These ideals spread to the Spanish and Portuguese colonies, giving a strong ideological impetus to the revolutionary movements. The Enlightenment spurred the desire for social and economic reform to spread throughout Latin America and the Iberian Peninsula.

The Napoleonic Wars

These were a series of wars fought between Napoleon's army and alliances involving Britain, Prussia, Spain, Portugal, Russia and Austria at different times, from 1799 to 1815.



- Wherever and whenever Napoleon emerged victorious, he fundamentally altered the political dynamics of the defeated territory. In the context of Spain, Napoleon forced Carlos IV and King Fernando VII (in May 1808) to give up the claim to the throne, and installed his own brother, Joseph Bonaparte as the Spanish king.
- This disrupted the political stability of both Spain and its colonies. Cities throughout Spain and its colonies in America, each formed governing bodies, primarily consisting of local elites called juntas. The prime motive of these juntas in taking power over their communities was that "in absence of the king, Fernando VII, their sovereignty devolved temporarily back to the community".
- All colonies established their own juntas and though swore loyalty to the captive Fernando VII, each ruled different and diverse parts of the colony.
- However, after Fernando VII was restored to the Spanish crown in 1814, his policy of restoring absolute power antagonized both the juntas and his subjects.
- The violence used by the royalist forces and the prospect of being ruled by Fernando finally shifted the majority of the colonist population in favour of separation from Spain.

Decolonization in the New World

Haitian Revolution

The Haitian revolution was a successful anti-slavery and anti-colonial insurrection that took place in the French colony from 1791 to 1804 resulting in the establishment of the sovereign state of Haiti.

- It had a huge impact on the institution of slavery throughout the Americas. The Haitian revolution is the only instance in the history wherein a slave revolution led to the founding of a free state, ruled by non-whites and former captives.
- Most historians agree that the revolution was a watershed moment in the freedom struggle of the Atlantic World.
- The most important aspect of the Haitian Revolution was that it challenged long-held beliefs about black inferiority and of the enslaved person's capacity to achieve and maintain freedom.
- The ability of slaves to organize and mobilize their efforts and withstand the full might of a European power became a source of inspiration throughout the continent.

Freedom of Other Latin American Countries

The aforesaid phenomenon of Napoleonic war was the reason for several revolutions which swept across Latin America and resulted in the independence of several Spanish colonies during the first quarter of the 19th century.

- Argentina became independent following the May revolution in 1816. Bolivia became independent after a 16 year long military struggle in 1825. Chile broke out from Spain in 1810.
- After a 12 year long armed struggle against the Spanish rule, Ecuador became independent in 1822.
- Mexico after a tortuous struggle from 1808 to 1821, became free from Spanish control. Uruguay became independent following the Treaty of Montevideo in 1828.
- Peru proclaimed its independence on July 28, 1821, following long military campaigns led by Simon Bolivar.



- Venezuela became independent from Spanish rule in 1819-20 again following the efforts of Simon Bolivar.
- Brazil, a Portuguese colony, achieved its independence in a relatively peaceful transfer of power wherein Dom Pedro I (also Pedro IV of Portugal), son of the Portuguese king Dom João VI, proclaimed the country's independence in 1822 and became Brazil's first Emperor. This was generally peacefully accepted by the crown in Portugal, although some guerrilla wars were fought between Portuguese troops and civilians. Portugal recognized Brazil's independence 3 years later upon compensation.

Pattern of Decolonization in Latin America

Decolonization in Latin Ame<mark>rican countries, particularly i</mark>n Argentina, Bolivia, Paraguay, Peru and Uruguay was marked by a common pattern of an armed struggle which was waged against the forces loyal to the Spanish monarch by the revolutionaries who were members of the local elite who largely took advantage of the weakness of the Spanish colonial government in these countries after the defeat of Spain in the Peninsular War and subsequent removal of King Ferdinand VII.

Absence of a rightful king in the Spanish throne reduced the legitimacy of the office of the Viceroy and as a result the right of Viceroys to govern came under scrutiny. The local elites, troubled by the Spanish trade restrictions and taxes, utilized the opportunity and mobilized the masses to wage an armed struggle against the establishment. These local elites promised the political and economic concessions to the masses, which were restricted or denied by the Spanish colonial government, to seek support from them. They were supported by foreign powers who were adversarial to Spain and taking advantage of the weakness of the colonial power, were somehow able to wrest freedom from them.

In other countries such as Mexico wherein the struggle for freedom was prolonged, was mainly because of the differences cropping among the revolutionaries themselves on account of various changes in circumstances which threw different propositions for consideration.

Therefore, the history of decolonization of Latin America is basically an account of military campaigns where the role of interests largely preceded ideology and strategic power dominated diplomacy. The struggle threw up some extra-ordinary military leaders like Simon Bolivar, who are remembered for their daring and tactics till date.

New Imperialism

The term 'new imperialism' is used to refer to a new wave of imperialism that happened in the late 1800s and early 1900s which is characterized by the colonial expansion by European powers, the United States, and Japan.

Causes of New Imperialism

Economic Reasons

At the heart of imperialism were the economic benefits emanating from the industrial revolution that could only be maintained and enhanced if the mother country had three advantages.

One, it should have an uninterrupted supply of cheap industrial raw materials. Secondly, it should have unrestricted access to markets for selling their industrial products and thirdly, it should have access to cheap labour.



All these three aspects were addressed by the access to the colonies. Once the colonies were subjugated politically, they could be forced to sign one sided treaties granting the colonial powers unrestricted or duty free access to their markets. Now, these products were prepared out of factories which were run by cheap labourers again sourced from the colonies, most of the time they were sourced out of the huge slave trade racket which was being run across the world by these colonial powers.

With the development of means of transportation in the form of roads, railways and steamboats, the colonizers had access to the hitherto unexplored hinterlands of these colonies, which they utilized in brutally exploiting the natural resources of the colonies.

Now, since the industrial revolution had not reached to countries of Asia and Africa, these countries became prime targets of Imperialism. All these factors cumulatively contributed to make their products cheaper so that they can compete with those of the other European players who were in the market employing the same strategy.

This cutting edge competition between these powers could be trumped if a particular player had duty free access to a country's market while others had to pay an arbitrary amount of duties, specifically calibrated to drive these players out of the market.

Therefore, in the context of such an economic environment wherein the domestic market was very small and very much already saturated, the only way to get rich was by politically subjugating other countries so as to increase one's wealth over and above others.

This generated wealth was further utilized in improving the military capabilities which was thereafter employed in satisfying even more imperialistic ambitions thereby creating a self sustaining cycle of growth and expansion, all of which was driven by the engine of imperialism.

Therefore, the more imperialistic a country is, the bigger empire, it builds for itself and greater military power it becomes, which in-turn helps it to become even more imperialistic and so on.

Imperialist countries took over some places in Asia and Africa because of their military or strategic importance. For example, England needed Port Said, Aden, Hong Kong, Singapore and Cyprus – not to protect England, but to protect her conquered lands and trade route to India from rival nations. At these places she established naval bases and coaling stations to strengthen her overseas power. Rival nations got similar bases elsewhere. Acquiring a colony also had a chain reaction, i.e. if a country acquired a colony, it needed another to protect it and so on.

Extreme Nationalism: Pride and Power

The later part of the nineteenth century was a period of intense nationalism. Germany and Italy had just succeeded in becoming unified nations. Nationalism in the late nineteenth century came to be associated with chauvinism. Many nations developed myths of their superiority over other people.

Each one felt that it too must have colonies to add to its prestige and power. Imperialism became the fashion of the age. Writers and speakers in England, France and Germany opened institutions to promote the idea of imperialism, and took great pride in calling their territories as empires.

The 'Civilizing Mission'

In the minds of many Europeans, imperialist expansion was very noble. They considered it a way of bringing civilization to the 'backward' peoples of the world.



The famous English writer, Rudyard Kipling asked his countrymen to shoulder what he called 'the White Man's Burden'. Jules Ferry, in France, said, 'Superior races have the duty of civilizing the inferior races'. Christian missionaries, dedicated to spreading Christianity, also played their part in promoting the idea of imperialism. Usually they went alone into unknown areas in a spirit of duty. Very often they were followed by profiteering traders and soldiers. Wars often took place to protect the missionaries.

All this seemed quite natural to most Western people who considered it their nation's destiny to civilize and Christianize the peoples of Asia and Africa. President McKinley of the United States summed up the reasons for annexing the Philippines in these words"There was nothing left to do but to take them all, and to educate the Filipinos, and uplift and civilize and Christianize them as our fellow men for whom Christ also died".

Role of Explorers and Adventurers

They also helped in spreading imperialism. They went into unknown or little known territories and brought back reports that often indicated opportunities for trade and development.

On the basis of such reports, a trading post would first be set up; next, gradually the explorer's home government would arrange to take over 'protection' of the entire area around the trading post.

Then this government would proceed to claim the entire territory. The work of explorers and adventurers was particularly important in Europe's taking over of Africa.

Backwardness of Asia and Africa

The most important condition favoring the imperialist conquest of Asia and Africa was that the Industrial Revolution had not come to this part of the world.

The craftsmen produced goods of fine quality that Westerners admired and desired. But they relied entirely on hand tools which meant production on a small scale.

In comparison with the production of Western countries in the nineteenth century, Asian and African methods were backward.

Also, because of the lack of knowledge that the Industrial Revolution had brought to the West, the two continents were militarily unable to stand up to the armed might and power of Europe.

The governments of the countries of Asia and Africa were very weak in the nineteenth century, though in ancient and medieval times powerful empires had existed there.

- In the nineteenth century, the old ways of governing were still followed, even though they had outlived their usefulness.
- Strong nation-states in the modern sense had not developed.
- The people's loyalties were still towards local princes as in feudal times, or to tribal chieftains. These rulers cared little for the welfare of the people.
- These conditions helped to explain how small bands of Westerners succeeded in gaining power and finally with the backing of their governments, in conquering entire countries.



Scramble for Africa

Africa Before Imperialism

In the mid 1800s, before the European domination of Africa, African people were divided into hundreds of ethnic and linguistic groups. Most continued to follow traditional beliefs, while others converted to Islam or Christianity.

These groups spoke more than 1,000 different languages. Politically, they ranged from large empires that united many ethnic groups to independent villages.

The largest empire in West Africa at its peak had a population of about 10 million people. Although Europeans had established contacts with Africans as early as the 1450s, they actually controlled very little land. The main reasons appear for the same are:

- European travel into the interior on a large-scale basis was virtually impossible. Europeans could not navigate African rivers that had so many rapids and cataracts and drastically changing flows. Until the introduction of steam-powered riverboats, Europeans would not be able to conduct major expeditions into the interior of Africa.
- Large networks of Africans conducted trade. These trade networks kept Europeans away from controlling the sources of trade items such as gold and ivory. These trade networks were specialized. The Chokwe, for example, devoted themselves to collecting ivory and beeswax in the Angola highlands. Others, such as the Yao carried their goods to merchants on the coast.
- Powerful African armies were able to keep the Europeans out of most of Africa for 400 years. As late as 1880, Europeans controlled only 10% of the continent's land, mainly on the coast.

Slave Trade

- The European penetration of Africa from the late fifteenth century onwards was confined for a long time mainly to certain coastal areas. However, even these limited contacts led to the most tragic and disastrous consequences for the people of Africa.
- One of the first results of these contacts was the purchase and sale of people the slave trade. The Spanish rule in the Americas had resulted in the large-scale extermination of the original inhabitants of the Americas.
- The Portuguese had established a slave market in Lisbon and the Spaniards bought slaves from there and took them to their colonies in the Americas to work there. African villages were raided by slave traders and people were captured and handed over to the European traders.
- Earlier, the Arabs had dominated the slave trade. Subsequently, some African chiefs also took part in the slave trade by trading slaves in exchange for firearms which the European traders sold to them. The Europeans themselves also raided the villages and enslaved the people, who were then transported. When the demand for slaves in America increased, they were sent directly from Africa by the traders.
- Up to about the middle of the nineteenth century, this trade continued. Millions of Africans were uprooted from their homes and many were killed while resisting the raids on their villages by the traders.
- They were taken in ships as inanimate objects and in such unhygienic conditions that the sailors on the ships often revolted. Lakhs of them died during the long journey. It is estimated that not even half of the slaves captured reached America alive.



- The inhuman conditions under which they were forced to work on the plantations cannot even be imagined today. Extreme brutalities were inflicted on those who tried to escape. The person who killed a runaway slave was given a reward by the government. Slavery had become an integral part of the colonial system established by European countries during this period.
- By the early nineteenth century, trade in slaves lost its importance in the system of colonial exploitation. Slavery was also a hindrance if the interior of Africa was to be opened to colonial exploitation.
- In fact, some colonial powers used the pretext of abolishing slave trade to go to war against African chiefs and kings to expand their territorial possessions.
- In the meantime, exploration of the interior of Africa had begun and preparations made by the European powers to impose another kind of slavery on the continent of Africa – for the direct conquest of almost entire Africa.

Weakness of Africa

The interior of Africa was al<mark>most unknown to the Europ</mark>eans up to about the middle of the nineteenth century. However, once they were done with the reputation of being slave traders, the speed with which the European powers conquered Africa is without a parallel. It is necessary to understand t<mark>he reasons for this. They ar</mark>e briefly listed as follows:

- The imperialist countries were far more powerful than the African states.
- The economic might of the imperialist powers was much greater than the economic resources of the African States. The latter did not have the resources to fight a long war in terms of military strength.
- The Africans had outdated firearms which had been sold to them by the Europeans. They were no match for the new rifles and guns which the Europeans used.
- Politically, like Indian states in the eighteenth century, the African states were not united. There were conflicts between states and within states, and the rulers and chiefs often sought the support of the Europeans against their rivals. As a result of these conflicts, the boundaries of the African states were often changing. As against this, the imperialist countries participating in the scramble for Africa were united.

Paper Partition

The scramble had created serious rivalries among the imperialist nations. In fact, the scramble to grab the maximum of African territory in the shortest possible time was the result of these rivalries.

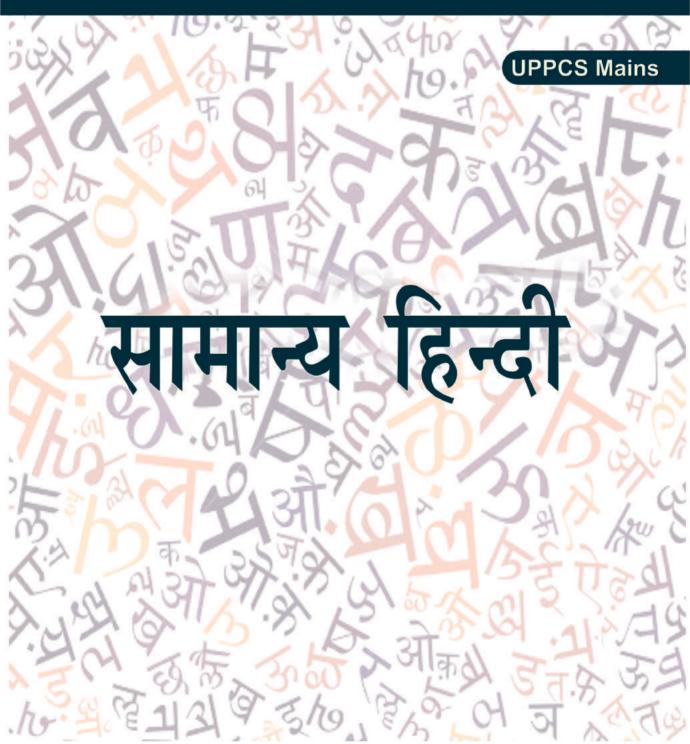
Many a times during the scr<mark>amble, war between these co</mark>untries became imminent, but in almost every case, war was avoided and agreements were reached between them as to who will get which part of Africa. For example, the Anglo-German rivalries in East Africa were resolved in 1890 when Germany agreed to concede Uganda to Britain in exchange for Britain giving away to Germany.

In 1884-85, there was a Con<mark>gress in Berlin, where a gro</mark>up of European states met and discussed how to share out Africa among themselves. No African state was represented at this Congress. Treaties were signed between European powers to settle disputes over claims to African territories among themselves.

Treaties were also signed between African rulers and chiefs, and the representatives of European governments, European companies or individuals, which were later ratified by



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9 क्रिया

उत्तर प्रदेश लोक सेवा आयोग द्वारा राज्य प्रशासनिक सेवा परीक्षा के लिये 'सामान्य हिन्दी' प्रश्नपत्र के लिये निर्धारित पाठ्यक्रम को ध्यान में रखते हुए 'क्रियाएँ' नामक अध्याय के अंतर्गत क्रिया एवं उनके प्रकार, काल एवं उनके प्रकार, वाच्य एवं उनके प्रकार, अव्यय एवं उनके प्रकार तथा क्रिया–विशेषण आदि को स्पष्ट रूप से प्रस्तुत किया गया है।

9.1 क्रिया एवं उनके प्रका<mark>र</mark>

सामान्य अर्थों में जब किसी शब्द के <mark>द्वारा किसी कार्य के होने या करने का</mark> भाव उत्पन्न हो, उसे क्रिया कहा जाता है। उदाहरण- खाना, टहलना, पढ़ना आ<mark>दि।</mark>

क्रिया के रूप, लिंग एवं वचन आदि के अनुसार बदलते रहते हैं इसलिये उसे विकारी शब्द माना गया है। क्रिया के मूल में धातु निहित होती है। यदि 'लिखना' क्रिया को लिया जाए तो इसकी मूल धातु 'लिख' है तथा 'ना' प्रत्यय है। धातु 'क्रिया' पद के उस भाग को कहा जाता है जो किसी क्रिया के लगभग सभी रूपों में पाया जाता है। शब्द निर्माण की दृष्टि से धातुएँ दो प्रकार की होती हैं-

• मूल धातु

• यौगिक धातु

मूल धातु

मूल धातु उसे कहा जाता है जो किसी पर आश्रित न होकर स्वतंत्र होती है। जैसे: खा, जा, गा, रो आदि।

यौगिक धातु

यौगिक धातु उन धातुओं को कहा ज<mark>ाता है जिनका निर्माण 'प्रत्यय' जोड़कर</mark> किया जाता है। जैसे: लिखना से लिखा, पढना से पढ़ा आदि।

क्रिया के प्रकार (भेद)

रचना की दृष्टि से क्रिया के दो प्रमुख भेद होते हैं, जो निम्नलिखित हैं-

1. अकर्मक क्रिया

2. सकर्मक क्रिया

1. अकर्मक क्रिया

जिस क्रिया को किसी कर्म की आव<mark>रथकता नहीं होती तथा उसके कार्य</mark> का फल कर्ता पर ही पड़े, उसे **अकर्मक** क्रिया कहते हैं। उदाहरणार्थ–

(i) राम सोता है।

यहाँ सोने का फल राम पर ही पड़ता है।

2. सकर्मक क्रिया

भाव को स्पष्ट करने के लिये जिस क्रि<mark>या को कर्म की आवश्यकता पड़ती है,</mark> उसे **सकर्मक क्रिया** कहते हैं। उदाहरणार्थ-राम आम खाता है।

यहाँ राम कर्त्ता है। यहाँ राम के खाने के क्रिया का असर आम पर पड़ता है। कभी-कभी सकर्मक क्रिया का कर्म <mark>छिपा रहता है।</mark> जैसे- राम गाता है। यहाँ गीत छिपा है।



संरचना के आधार पर क्रिया के भेद

- प्रेरणार्थक क्रियाएँ 1.
- संयुक्त क्रियाएँ 2.
- 3. अनुकरण<mark>ा</mark>त्मक क्रियाएँ

- 4. नामधातु क्रियाएँ
- कृदंत क्रियाएँ 5.

प्रेरणार्थक क्रियाएँ : जब कर्त्ता कार्य स्वयं न करके किसी अन्य को करने की प्रेरणा दे, यथा-

अभय ने उदय को जगाया।

(उदय अभय की प्रेरणा से जागा

अर्थात्- अभय से उदय को जगवाया

संयुक्त क्रियाएँ : क्रिया जो किसी अन्य क्रिया अथवा संज्ञा आदि शब्दों के साथ दूसरी क्रिया का योग करने से बनती है; यथा- वह जाना चाहता है।

अनुकरणात्मक क्रियाएँ : किसी वास्तविक या काल्पनिक ध्वनि के अनुकरण से निर्मित क्रिया: यथा-

सनसन से सनसनाना, थरथर से थरथराना

नामधातु क्रियाएँ

संज्ञा, सर्वनाम या विशेषण से बनी क्रि<mark>याएँ- हाथ से हथियाना, बात से बति</mark>याना।

कृदंत क्रियाः ऐसी क्रिया जो कृत- प्रत्ययों के संयोग से बनती है: हँसता, चलता, दौड़ता।

प्रयोग के आधार पर क्रिया के प्रमु<mark>ख रूप से पाँच (5) प्रकार (भेद</mark>) होते हैं, जो निम्नलिखित हैं-

- 1. सहायक क्रिया
- 2. पूर्वकालिक क्रिया
- 3. सजातीय क्रिया
- 4. द्विकर्मक क्रिया
- 5. विधि क्रिया

सहायक क्रिया

ऐसी क्रिया जो मुख्य क्रिया के संपा<mark>दन में सहायता करती है, वह **सहायक** क्रिया</mark> कहलाती है। यह मुख्य क्रिया के बाद आती है तथा उसी पर निर्भर होती है।

- जैसे- (i) वह घर जा चुका था।
 - (ii) वे यह काम कर लेंगे।
 - (iii) यह बात मैं तुम्हें बता दूंगा।

इसी प्रकार, पाना, चुकना, है, हैं, था, थी, थे, करना आदि आना सहायक क्रियाएँ हैं।

पूर्वकालिक क्रिया

जब कर्त्ता एक क्रिया को समाप्त क<mark>रके तत्काल किसी दूसरी क्रिया को श</mark>ुरू या आरंभ करता है तो इस स्थिति में पहली क्रिया को **पूर्वकालिक क्रिया** कहते हैं।

- जैसे- (i) वह खाकर सो गया।
 - (ii) मैं **जागकर** दफ्तर गया।

सजातीय क्रिया

कुछ अकर्मक एवं सकर्मक क्रियाओं <mark>के साथ उनके धातु से बनी क्रिया जो</mark> भाववाचक संज्ञा के रूप में प्रयोग होती है वह सजातीय क्रिया कहलाती है।



- जैसे- (i) वह अच्छा लेख लिख रहा है।
 - (ii) वह मन से **पढ़ाई** करता है।

द्विकर्मक क्रिया

क्रिया के दो कर्म होने की स्थिति को द्विकर्मक क्रिया कहते हैं।

जैसे- (i) 'मैं लड़के को विज्ञान पढ़ा<mark>ता हूँ' में दो कर्म हैं- 'लड़के को' औ</mark>र 'विज्ञान'।

विधि क्रिया

ऐसी क्रिया जिसके द्वारा किसी प्रकार <mark>की आज्ञा का बोध होता हो। वैसी क्रि</mark>या विधि क्रिया कहलाती है।

- जैसे- (i) पढ़ाई करो।
 - (ii) स्कूल जाओ।

9.2 काल एवं उनके प्रकार

क्रिया के जिस रूप के द्वारा कार्य को <mark>करने अथवा होने के समय का ज्ञान हो</mark>ता है वह काल कहलाता है। इसके माध्यम से क्रिया के कार्य व्यापार का समय और उसकी पूर्ण या अपूर्ण अवस्था का बोध होता है।

- जैसे- (i) मनोज घर जा रहा है।
 - (ii) मदन घर जा रहा था।
 - (iii) रमेश घर जाएगा।

उपर्युक्त वाक्यों के द्वारा क्रियाओं से <mark>कार्य के होने संबंधी समय का बोध हो</mark> रहा है। काल के प्रमुख रूप से तीन (3) प्रकार (भेद) होते हैं,

जो निम्नलिखित हैं-



वर्तमान काल

क्रिया का वह रूप जिसके द्वारा हमें <mark>वर्तमान में चल रहे समय का बोध हो</mark>ता है, वह वर्तमान काल कहलाता है। जैसे- (i) रमेश समाचार सुनता है।

- (ii) मदन घर जाता है।
- (iii) प्रीति स्कूल जाती है।

उपर्युक्त वाक्य के द्वारा क्रिया के व<mark>र्तमान समय के होने का बोध होता है</mark>, अत: उपर्युक्त क्रियाएँ वर्तमान काल से संबंधित हैं। वर्तमान काल में प्रमुख रूप से पाँच (5) प्रकार (भेद) होते हैं, जो निम्नलिखित हैं-

- सामान्य वर्तमान काल
- तात्कालिक वर्तमान काल
- पूर्ण वर्तमान काल
- संदिग्ध वर्तमान काल
- संभाव्य वर्तमान काल

78 सामान्य हिन्दी



सामान्य वर्तमान काल

क्रिया का ऐसा रूप जिसके द्वारा क्रिय<mark>ा के वर्तमान काल में होना पाया जाए,</mark> उसे सामान्य वर्तमान काल कहते हैं। अर्थात् ऐसी क्रिया जो वर्तमान में सामान्य रूप स<mark>े होती है, वैसी क्रिया सामान्य वर्तमान काल की क्रिया कहलाती है।</mark>

जैसे- (i) राम आम खाता है।

(ii) प्रिंसी स्कूल जाती है।

तात्कालिक वर्तमान काल

क्रिया का ऐसा रूप जिसके द्वारा बोध <mark>हो कि क्रिया वर्तमान में चल रही है, उ</mark>से तात्कालिक वर्तमान काल कहा जाता है। जैसे- (i) राम घर जा रहा है।

(ii) मनोज पत्र लिख रहा है।

पूर्ण वर्तमान काल

क्रिया का ऐसा रूप जिसके द्वारा कार<mark>्य के वर्तमान काल में पूर्ण सिद्धि का बोध होता है, उसे पूर्ण वर्तमान काल कहा</mark> जाता है।

जैसे- (i) राम ने खाना खाया है।

(ii) सीता स्कूल गई है।

संदिग्ध वर्तमान काल

क्रिया का ऐसा रूप जिसके द्वारा वा<mark>क्य में क्रिया के होने पर संदेह का बो</mark>ध हो। वह संदिग्ध वर्तमान काल कहलाता है।

जैसे- (i) राम लिख रहा होगा।

संभाव्य वर्तमान काल

क्रिया का ऐसा रूप जिसके द्वारा संभ<mark>ावना का बोध होता है कि कार्य वर्तमा</mark>न काल में हो जाएगा, उसे संभाव्य वर्तमान काल कहते हैं।

जैसे- (i) रमेश स्कूल से आया होगा।

(ii) राम बाज़ार से आया होगा।

भूतकाल

क्रिया के जिस रूप के द्वारा कार्य के समाप्त होने का बोध सिद्ध होता है, या क्रिया का ऐसा रूप जिसके द्वारा बीते हुए समय का बोध होता है, वह भूतकाल कहलाता है।

जैसे- (i) राम खाना खा चुका था।

(ii) राम ने अपना पाठ याद क<mark>र लिया था।</mark>

भूतकाल के प्रमुख रूप से छ: (6) प्रकार (भेद) होते हैं जो निम्नलिखित हैं-

- सामान्य भूतकाल
- आसन्न भूतकाल
- पूर्ण भूतकाल
- अपूर्ण भूतकाल
- संदिग्ध भूतकाल
- हेतुहेतुमद् भूतकाल



सामान्य भूतकाल

क्रिया का ऐसा रूप जिसके द्वारा का<mark>र्य के सामान्य रूप से बीते हुए समय</mark> (भूतकाल) में पूरा होने का बोध होता है, वह सामान्य भूतकाल कहलाता है।

- जैसे- (i) मोहन बाज़ार गया।
 - (ii) दिनेश ने पत्र लिखा।

आसन भूतकाल

क्रिया के जिस रूप के द्वारा बोध होत<mark>ा है कि क्रिया अभी कुछ समय पहले</mark> ही पूर्ण हुई है, उसे आसन्न भूतकाल कहा जाता है।

- जैसे- (i) मैं चला हूँ।
 - (ii) मैं दौड़ा हूँ।

पूर्ण भूतकाल

क्रिया का ऐसा रूप जिसके द्वारा कार्य <mark>की समाप्ति या पूर्ण होने संबंधी समय</mark> का स्पष्ट बोध होता है, वह पूर्ण भूतकाल कहलाता है।

- जैसे- (i) मनोज घर जा चुका था।
 - (ii) उसने मदन को मारा था।

अपूर्ण भूतकाल

क्रिया का ऐसा रूप जिसके द्वारा क्रि<mark>या के भूतकाल में होने का तो बोध हो</mark> परंतु क्रिया की समाप्ति का बोध न हो, उसे अपूर्ण भूतकाल कहते हैं।

- जैसे- (i) राम घर आ रहा था।
 - (ii) वह स्कूल जा रही थी।

संदिग्ध भूतकाल

क्रिया का ऐसा रूप जिसके द्वारा क्रि<mark>या के भूतकाल में पूरा (पूर्ण) होने</mark> के संबंध में संदेह प्रकट हो, वह संदिग्ध भूतकाल कहलाता है।

- जैसे- (i) राम गया होगा।
 - (ii) ट्रेन छूट गई होगी।

हेतुहेतुमद् भूतकाल

क्रिया का ऐसा रूप जिसके द्वारा एक क्रिया के होने या न होने पर दूसरी क्रिया का होना अथवा न होना निर्भर करता है, वह हेतुहेतुमद् भूतकाल कहलाता है।

- जैसे- (i) यदि मदन ने पत्र लिखा हो<mark>ता तो मैं अवश्य आता।</mark>
 - (ii) यदि वर्षा होती, तो फसल अच्छी होती।

भविष्यत् काल

क्रिया के जिस रूप के द्वारा कार्य के <mark>आने वाले समय (भविष्य काल) में</mark> करने या होने का भाव प्रकट होता है, वह भविष्यत् काल कहलाता है।

- जैसे- (i) मदन स्कूल जाएगा।
 - (ii) राम पत्र लिखेगा।



भविष्यत् काल के प्रमुख रूप से तीन (3) प्रकार (भेद) होते हैं, जो निम्निलिखित हैं-

- सामान्य भविष्यत् काल
- संभाव्य भविष्यत् काल
- हेतुहेतुमद्भविष्य भविष्यत् काल

सामान्य भविष्यत् काल

क्रिया के जिस रूप के द्वारा क्रिया <mark>के भविष्य में सामान्य ढंग से होने का</mark> बोध होता है, वह सामान्य भविष्यत् काल कहलाता है।

- जैसे- (i) राम बाज़ार जाएगा।
 - (ii) दिनेश अखबार बेचेगा।

संभाव्य भविष्यत् काल

क्रिया के जिस रूप के द्वारा क्रिया <mark>के भविष्य में होने संबंधी संभावना का</mark> बोध होता है, वह संभाव्य भविष्यत् काल कहलाता है।

- जैसे- (i) परीक्षा में शायद मदन को अच्छे अंक प्राप्त हों।
 - (ii) चोर शायद पकडा जाए।

हेतुहेतुमद्भविष्य भविष्यत् काल

इस प्रकार के काल में जब भविष्य <mark>में किसी क्रिया का होना किसी दूसरी</mark> क्रिया के होने पर निर्भर करता है तो वह हेतुहेतुमद्भविष्य भविष्यत् काल कहलाता <mark>है</mark>।

- जैसे- (i) राम आए तो मदन जाए।
 - (ii) वह कमाए तो मैं खाऊँ।

9.3 वाच्य एवं उनके प्रकार

क्रिया के जिस रूप द्वारा यह ज्ञात होता है कि वाक्य में क्रिया द्वारा जो विधान संपादित किया जाता है, उस विधान का विषय- कर्त्ता है, कर्म है या भाव है, उसे <mark>'वाच्य' कहते हैं। दूसरे शब्दों में वाच्य</mark>, क्रिया के उस परिवर्तन को कहा जाता है, जिसके द्वारा इस बात का बोध होता है <mark>कि वाक्य के अंतर्गत कर्त्ता, कर्म अथ</mark>वा 'भाव' आदि में से किसकी प्रधानता है।

वाच्य के प्रमुख रूप से तीन प्रकार/भाग होते हैं, जो निम्नलिखित हैं-



कर्तृवाच्य

क्रिया के जिस रूप के द्वारा वाक्य क<mark>े उद्देश्य (क्रिया का कर्ता) का बोध</mark> होता है, उसे कर्तृवाच्य कहते हैं। कर्तृवाच्य में लिंग तथा वचन कर्ता के अनुसार निर्धा<mark>रित होते हैं।</mark>

उदाहरण-

(i) राम घर जाता है।

- (ii) मोहन खेलता है।
- (iii) घोडा दौडता है।