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THE YK GIST

ANIMAL HUSBANDRY

DISASTER MANAGEMENT

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Preface

This is our 22nd edition of Yojana Gist and 13th edition of Kurukshetra Gist, released for the month of January, 2017. It is increasingly finding a place in the questions of both UPSC Prelims and Mains and therefore, we've come up with this initiative to equip you with knowledge that'll help you in your preparation for the CSE.

Every Issue deals with a single topic comprehensively sharing views from a wide spectrum ranging from academicians to policy makers to scholars. The magazine is essential to build an in-depth understanding of various socio-economic issues.

From the exam point of view, however, not all articles are important. Some go into scholarly depths and others discuss agendas that are not relevant for your preparation. Added to this is the difficulty of going through a large volume of information, facts and analysis to finally extract their essence that may be useful for the exam.

We are not discouraging from reading the magazine itself. So, do not take this as a document which you take read, remember and reproduce in the examination. Its only purpose is to equip you with the right understanding. But, if you do not have enough time to go through the magazines, you can rely on the content provided here for it sums up the most essential points from all the articles.

You need not put hours and hours in reading and making its notes in pages. We believe, a smart study, rather than hard study, can improve your preparation levels.

Think, learn, practice and keep improving! That is the key to success ☺

Animal Husbandry

Animal husbandry is an art of breeding and rearing animals for the benefit of human society.

Animal husbandry primarily applies to cattle or dairy cows, buffalo, chicken, goats, pigs, horses and sheep. Today, even animals like donkeys, mules, rabbits and insects like bees are raised as part of it.

Background

- Rearing of animals is an old age practice of Indian culture.
- Different phases of cultural revolutions have seen animals embossing their importance through their contribution in human livelihood.
- Ancient monuments and findings from excavations have proved intense relation between animals and humans.
- The ancient symbols of prestige and power had been mostly decorated in form of animal sculpture which denotes their cultural worth.

Scenario of India's animal wealth

- It is enriched with one of the largest diversity of animal wealth in world
- At present there are, 37 breeds of cow, 13 of buffaloes, 39 of sheep, 24 of goats, 6 of horses, 8 of camels, 2 of pigs and 15 of poultry.
- The livestock census is carried out once every 5 years with last one (19^{th} census) being done in 2019.
- There has been overall 3.33% of decline in total livestock population from the 18^{th} census.

This sector is emerging as an important farming area which can create more employment and address food security.

Animal Husbandry in India

The rearing of animals can be classified into three types:

Mixed Livestock Farming

- highly popularised amongst Indian farmers
- involves agriculture and animals together as a principle of co-existence.
- animals are used for tillage and providing manure to agriculture. In return, the animals get crop residues as feed, care and shelter.

Migratory Livestock Farming

- ancient system of livestock farming
- the natural resources in form of pastures and grass are used to feed animals.
- but due to declining of natural grasslands and limited monsoon, this method is slowly declining.

Organized Livestock Farming

- it is a modern method where animals are reared with specialised purpose.
- all amenities required for well-being of animal are privided in scientific manner.
- animals are managed in intensive or semi-intensive housing by providing balanced ration to increase productivity.

Economics aspect of Animal Husbandry

Poverty and livestock management

- Livestock supports 25% of gross value added in agriculture sector.
- Provides self-employment to millions.
- From equity and livelihood standpoints, livestock rearing must be central to the poverty lessening programmers. It has been draught power, manure, employment, household income and export incomes. Thus while assessing inclusive growth, it should be considered from equity and livelihood perspective.

Women Empowerment

- Livestock rearing at household level is a women-led activity. Income from livestock rearing and decisions related to management of livestock are mainly taken by women.
- This has led to increased empowerment as well as decision making capacity of the women.

Environmental impact

- Animal agriculture responsible for 20-33% of all fresh water consumption in world today.
- It is leading cause of species extinction, ocean dead zones, water pollution and habitat destruction.
- In addition to monumental habitat destruction caused by clearing forests and converting land to grow feed crops and for animal grazing, predators and 'competition' of species are frequently targeted and hunted because of perceived threat to livestock profits.

Climate change

- Livestock and their products account for at least 32,000 million tons of C02 per year of 51% of all worldwide GHGs.
- It is responsible for 65% of all human-related emissions of nitrous oxide- a GHG with 296 times global warming potential of C02 and stays in atmosphere for 150 years.
- Agriculture contributes significantly to emissions of non-Co2 GHGs such as methane and nitrous oxide.
- Hence it is necessary to mitigate it through using gas produced from manure from energy production (biogas).

A global analysis of livestock sector by UNFAO reflected that

Food security

- It makes important contribution to food security and poverty reduction for many low-income rural families but many countries have been unsuccessful to serve the needs of poorest households and include them in development.

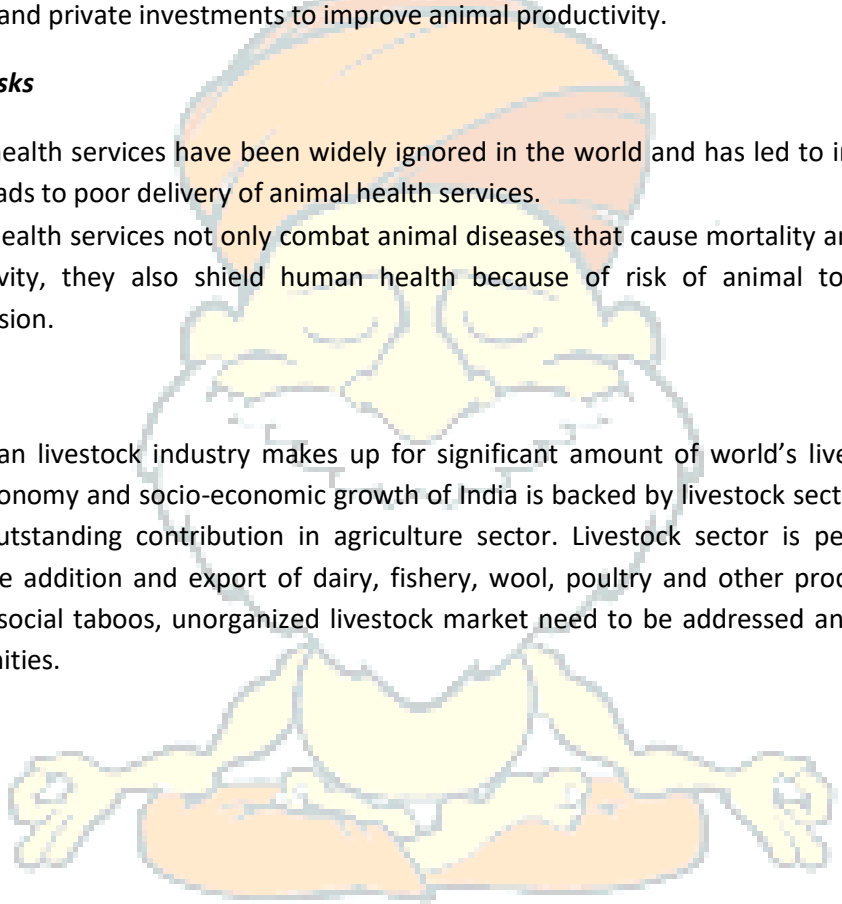
Natural resource degradation

- Livestock producers, including traditional pastoralists and small holders, are both victims of natural resource degradation.
- Remedial action lies in mix of public goods related to environmental protection, ecosystem services and private investments to improve animal productivity.

Human health risks

- Animal health services have been widely ignored in the world and has led to institutional flaws which leads to poor delivery of animal health services.
- Animal health services not only combat animal diseases that cause mortality and reduce animal productivity, they also shield human health because of risk of animal to human disease transmission.

Conclusion- Indian livestock industry makes up for significant amount of world's livestock resources. Both national economy and socio-economic growth of India is backed by livestock sector. It offers great potential and outstanding contribution in agriculture sector. Livestock sector is performing well in production, value addition and export of dairy, fishery, wool, poultry and other products. Challenges associated with social taboos, unorganized livestock market need to be addressed and tap into global market opportunities.



Poultry

- It is one of the fastest growing segment of agriculture in India
- India is 3rd largest egg producer in world and 5th largest in broiler.
- Though agricultural production has been rising at rate of 1.5-2% per annum, eggs and broilers have been rising at 8-10%.

- It is one of the most organized sector in animal agriculture
- Eggs and chicken are accepted by all communities and are available at the most reasonable prices.
- There is scope for enhancing the production

Conclusion- As poultry industry is among fastest growing in world, it needs greater integration, better cost effectiveness and improvement in distribution.

Poultry in India needs good branding system in order to increase consumption, especially chicken.

Beekeeping

- Beekeeping is an agro based activity.
- It is being undertaken by farmers/landless laborers in rural areas as an integrated farming practice.
- Though honeybees are best known for the honey they produce, their economic role in nature is to pollinate thousands of flowering plants and assure setting or seed or fruit.
- Thus, honeybees have a vital role in sustaining plants biodiversity resulting into environmental sustainability.

Beekeeping Industry Benefits

- Self-employment to rural and forest based population
- Production of honey, pollen, beeswax, royal jelly, venom
- Employment to rural educated youth in collecting, processing and marketing of bees/beehive products
- Cross-pollination of various agricultural and horticultural crops, improving their quality and increasing their yields.
- Proper utilization of natural resources, encouraging biodiversity and ecological awareness.

Role in Rural Development

- Till mid-20th century, honeybees were meant to produce only honey and beeswax.
- However, in past 3-4 decades, utilizing honeybees to pollinate large number of agricultural and horticultural crops to increase per acre yield has become a routine practice in many developed countries.
- Increasingly being realized that bees could be less expensive input for promoting sustainable and eco-friendly agriculture and enhancing crop productivity

Beekeeping Challenges

- Lack of scientific data on choice of honey bee species for commercial beekeeping.
- Gap in technical knowledge for efficient management of bee colonies for higher yield.
- Insufficient infrastructure at grassroots and national level for promoting beekeeping
- Non-traditional, newly introduced industry.
- Behavior and life cycle of bees depend on climatic floristic conditions which vary from pace to place. Impact of global warming.
- Indiscriminate use of pesticides, insecticides, weedicides.

Government initiatives/programmes

- Revived various traditional village industries post-independence
- Established All India Khadi and Village Industries Board in 1954
- All India Coordinated Research Project on Honeybee Research and Training by ICAR & SAUs.
- Central Scheme 'Development of Beekeeping for Improving Crop Productivity' during VIII Plan and XI Plan. Subsumed under Macro Management Scheme in 2000. Focus on beekeeping diminished under such arrangement.
- National Bee Board formed in 2000. Aim to act as Nodal agency for formulation, implementation, execution, monitoring of projects in beekeeping field.
- In 2005, beekeeping became part of National Horticulture Mission

Beekeeping Industry

WORLD

- Honeybee colonies maintained all over world
- 15 countries account for 90% of world production
- Per capita consumption is 250-300gms. Germany has highest of >2000gms as it is considered as food.
- Japan has highest consumption of 600 gms in Asia.

INDIA

- There are 30 lakhs colonies in India
- Annual production of 89000 metric tonnes of honey
- One of the major exporting countries in India
- Major markets are Germany, USA, UK, Japan, France, Italy etc.
- India produces two types of honey
  - Apiary honey- domesticated bees
  - Squeezed honey- wild bees
- In India, honey is not used as form of food as its per capita consumption per year is 10gms approx.

Opportunities

- Maintenance of biodiversity by pollination of flowering plants.
- Bee colonies create livelihood options with 100 colonies giving Rs. 2.5-3 lakhs income per year.
- Honey has great food value and provides cash income.

Contd…

- Apitherapy medicine using bees products
- As bee products are used in food or pharmaceuticals, hygienic collection, handling, processing, storage and maintaining of National and International purity standards are of prime importance.
- No need of sophisticated technology, high capital investment or infrastructure

Sericulture

- It is one of the most unique animal product which has emerged stronger amongst various textile fibres to retain its unique position.
- Sericulture is the mass scale rearing of sericigenous insects in order to obtain silk. It has 4 components
    - Cultivation of silkworm food plants
    - Rearing of silkworms for cocoon production
    - Reeling the cocoons for unwinding silk filament
    - Other post cocoon processes such as twisting, dyeing, weaving, printing and finishing.

Types of silk

Types of silk	Silkworm name	Food plant	Common name of Food plant
Mulberry	*Bombyxmori*	*Morus spp.*	Mulberry
Tropical Tasar	*Antheraeap-erni Antheraeam-ylitta*	*Shorearobusta Terminaliator-mentosa Terminalaar-juna*	Sal Asan Arjun
Oak Tasar	*Antherae-aproylei*	*Quercusincana Quercusserreta Quercushimala-yana*	Oak
Eri	*Philosomiari-cini*	*Ricinuscom-munis Manihotutills-sima Heteropanax-fragrans*	Castor Tapioca Kesseru
Muga	*Antherae-aassama*	*Litseapolyantha Machilusbom-bycina*	Som Soalu

Status of Indian Silk Production

- India is the 2nd largest producer of silk in world after china. It is also largest consumer of silk in world.
- It is the only country that produces all 5 varieties of silk on commercial scale.
- It holds global monopoly for production of famed golden 'muga silk'.
- Major mulberry silk producing states are- Karnataka, AP, WB, TN and J&K accounting 96% of India's total mulberry raw silk production. Except Gujarat and Rajasthan, almost all Indian states are involved in production of one or other variety of silk.

Mulberry Silk Production in India

Introduction

- The silkworm solely feeds on mulberry plant
- Completely domesticated and reared indoors
- classified into Japanese, Chinese, European or Indian origin
- based on number of generations in a year, classified into univoltine, bivoltine, multivoltine
- predominantly rural and small-farm based
- post coccon activities in cottage and small industry

Cultivation

- the quality of mulberry leaf and cultivation technologies greatly influence health of silkworm larvae
- this affects the quality and quantity of reeling cocoons produced by farmers
- recommended varieties are- Southern (V1), East and North Eastern (S1635) and North Western states (S140).

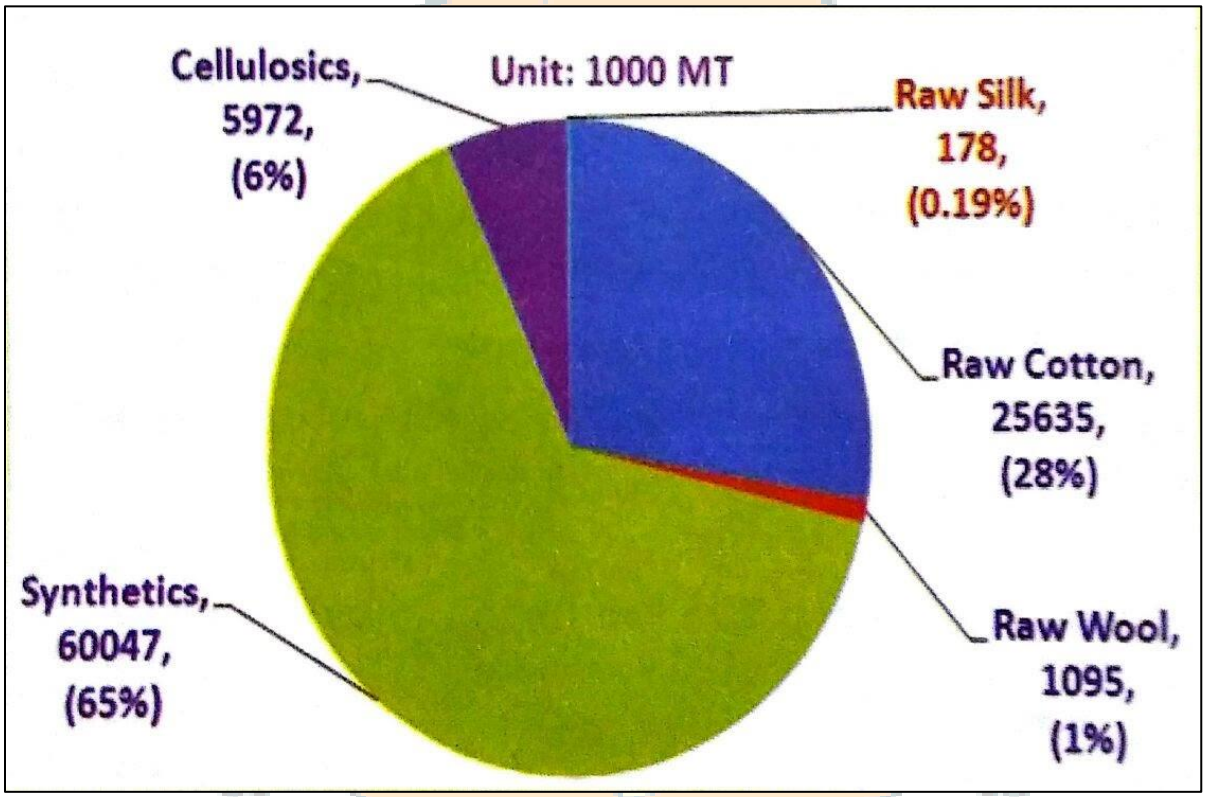
Silk production in India

- improved post independence due to concerted efforts through 5 year plans
- it has grown 29% to reach 20478 MT in 2015-16
- mulberry sericulture dominates in quality of production, quantity and popularity
- it involves both on-farm and non-farm activities
- success of coccon depends on productivity levels of breed, quality of mulberry leaf, production and suppply of disease free layings, adoption of advanced rearing technoliges and climatic conditions.

Global Silk Scenario

- It has undergone sea change over last 3-4 decades.
- Though global mulberry silk production has increased, primary silk producing countries like Japan, France, Italy and Spain have virtually disappeared from silk production scene.
- Now India and China are emerging as major silk producing countries as global demand for silk is growing by 2-3%.

Share of Silk in Global Textile Production



Conclusion- Wider scope exists for horizontal and vertical expansion of textile sector considering the merits of mulberry silk industry, the ever increasing demand for silk, abundant availability of natural resources and manpower, development of suitable package of practices for mulberry cultivation and silkworm rearing.

Blue Revolution

India is bestowed with varied potential resources in form of → Rivers and canals, Floodplain lakes, Ponds and tanks and Reservoirs and brackish water.

The marine potential is estimated at 4.41 million metric tonnes and their activities spread along 8118 km long coastline with 2.02 million sq.km of EEZ and continental shelf area of 0.53 million sq.km

The Vibrancy of the fisheries sector is visible from the transformation from traditional to commercial scale.

This has led to 11 fold increase that India achieved in fish production in just 6 decades.

It has contributed 0.91% to GDP and 5.23% to agricultural GDP.

India is 2nd largest fish producing and aquaculture producing nation in world. It constitutes 6.3% of global fish production and 5% of global trade.

Neel Kranti Mission (Blue Revolution)

- Fully tap inland and marine sector fish potential and triple production by 2020.
- Transform into modern industry with focus on new technologies.
- Double the income of fishers and fish farmers→ focus on increasing productivity and marketing.
- Triple export earnings by 2020

Blue revolution provides for focused development and management of fisheries- inland fisheries, aquaculture and marine fisheries including deep sea fishing and mariculture.

Blue revolution provides convergence with

- Sagarmala project
- MGNREGA
- Rashtriya Krishi Vikas Yojana
- National Rural Livelihoods Mission

National Policy on Marine Fisheries, 2016

- Based on 5 pillars of sustainable development, principle of subsidiarity, partnerships, intergenerational equity and precautionary approach
- Through implementation of NPMF, the marine fisheries sector to become sustainable and well-managed entity.

Culture Based Fisheries

Grow out Carp culture	• R&D efforts in last 5 decades have improved average fish yields making carp culture an important economic activity • Major Indian carps are Rohu, Catla and Mrigal
Catfish culture	• They have great commercial importance • Magur and Singhi are two air-breathing fishes for culture • Several other non-air breathing fishes like Pungasius pungasius, walago attu are also being cultured in view of high consumer preference.
Freshwater Prawn culture	• Macrobrachium rosenbergii is a giant freshwater prawn which is largest and fastest gorwing species among freshwater prawns. • Development of hatchery tech for M. rosenbergii and later, for Indian prawn M. malcomsonni has opened new possibilities for freshwater aquaculture
Freshwater Pearl culture	• Research has led to development of base technology of pearl production from freshwater mussel species and has also standardized different steps involves in its production.
Integrated fish culture	• It is the combination of two or more separate farming. • Here waste from one subsystem is utilized for sustenance of the other. • For example, fish-pig/poultry/duck farming • Has enormous scope for generating employment and rural economy
Ornamental fish culture	• It forms an important commercial component of fisheries with world trade of over US$7 billion • India has over 100 varieties of indigenous and exotic species that are bred in captivity. • Export of ornamental fishes is about Rs. 10 million whereas potential is about US$ 30 million
Coldwater fisheries development	• India has significant water bodies both in Himalayan region and western ghats which hold large population of both indigenous and exotic cultivable cold water species. • Mahaseers and Schizothoracids are indigenous and Trouts are important ones among exotic varieties.
Brackish water aquaculture	• India has huge brackish water resources of over 1.2 million hectares suitable for farming. • But total area of farming is just 13% potential water area. • Black tiger prawn contributes maximum in the shrimp production.
Pearl culture	• Success of marine pearl culture was achieved in 1973. • Raft culture techniques are followed for pearl oysters.
Seaweed culture	• Seaweed form important component of marine living organisms • Found mostly in shallow seas

	• It is also used as food, fodder, fertilisers and other industrial and pharma products.

Conclusion- the scope to capture fisheries from coastal water and natural inland waters like rivers and estuaries is limited. Hence, more focus should be on aquaculture and culture based fisheries to meet the targeted fish requirement of 8.3 million tons by 2020.

Post Sendai Initiatives and Way Forward

Sendai Framework

- The plan termed as 'Sendai Framework' was adopted during the 3rd UN World Conference on Disaster Risk Reduction, in Japanese city of Sendai in 2015
- It consists of four major priority areas and seven targets to be met by 2030. The expected outcome of the framework is to prevent creation of new disaster risks.
- The four priority areas of Sendai Framework include:
    1. Understanding Risk
    2. Strengthening Risk Governance
    3. Investing in disaster resilience
    4. Improving capacities for disaster response
- The Sendai Framework has set targets for substantial reduction in losses including reduction in number of deaths, number of people affected by disasters, economic losses and infrastructure losses
- It calls for increase in capacities through national and local strategies, international cooperation, and improved access to early warning.

In furtherance to its commitment to the Sendai framework, Government of India has taken up several important initiatives post Sendai Declaration.

- India has successfully hosted the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) and adopted 'New Delhi Declaration' and 'Regional Action Plan for implementation of the Sendai Framework'.
- Outcomes of the AMCDRR will guide the implementation of the Sendai Framework in Asia and the Pacific.
- In line with the Sendai priority 4, National Disaster Response Force (NDRF) is strengthened in terms of state-of-the-art training and equipment so as to further empower it as a professional disaster response force.
- Government has approved the creation of National Disaster Response Reserve (NDRR) through a revolving fund of Rs. 250 crore to be operated by the National Disaster Response Force.

- GOI expressed keenness to share India's expertise and help other countries in disaster response as it did during Japan Earthquake in 2011 and Nepal earthquake of 2015
- GOI is making efforts to promote regional cooperation by hosting the SAARC Disaster Management Centre to reduce disaster risks in the region and promoting knowledge sharing among the SAARC countries. SAARC Disaster Management Exercise (SAADMEX) 2015 held in Delhi provided ideal platform for sharing the government' ideas and experience.
- In an effort to augment capacity building, National Institute of Disaster Management (NIDM) has signed a MoU with Jawaharlal Nehru University (JNU) for financial assistance and academic cooperation for establishment of a Centre for Excellence in Disaster Research and Resilience Building at JNU
- The Government has implemented the recommendations of 14th Finance Commission and approved an allocation of Rs. 61,220 crore in State Disaster Response Fund (SDRF)

Prime Minister's 10-point Agenda on Disaster Risk Reduction Outlined at the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) 2016

The all-inclusive agenda presents a holistic approach to disaster risk management and addresses a whole range of issues, from community preparedness to use of technology and international cooperation. The Prime Minister's 10-point agenda on DRR is -

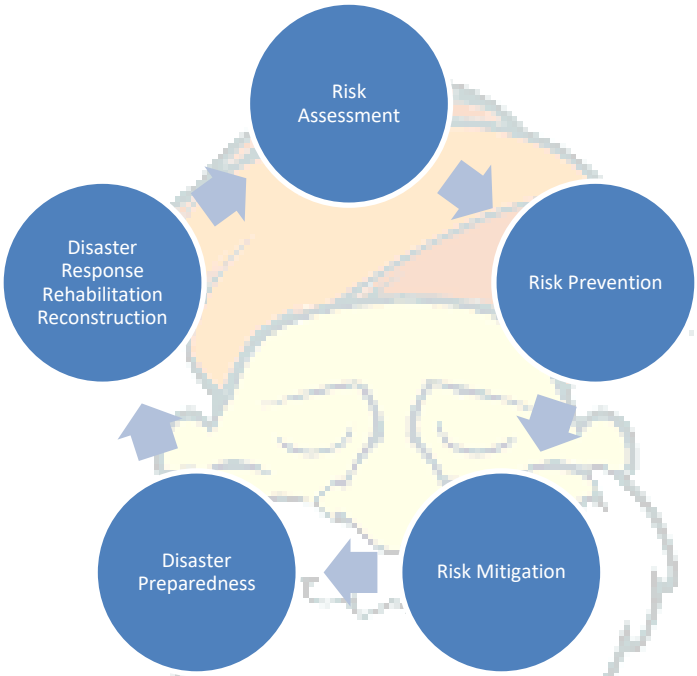
1. All development sectors must imbibe the principles of disaster risk management.
2. Work towards risk coverage for all-starting from poor households to SMEs to multi-national corporations to nation states.
3. Encourage greater involvement and leadership of women in disaster risk management.
4. Invest in risk mapping globally. For mapping risks related to hazards like earthquakes we have accepted standards and parameters.
5. Leverage technology to enhance the efficiency of our disaster risk management efforts.
6. Develop a network of universities to work on disaster issues.
7. Utilize the opportunities provided by social media and mobile technologies.
8. Build on local capacity and initiative.
9. Opportunity to learn from a disaster must not be wasted. After every disaster there are papers on lessons that are rarely applied.
10. Bring about greater cohesion in international response to disasters.

Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) 2016

- This first Asian Ministerial Conference for Disaster Risk Reduction after the advent of the Sendai Framework was hosted by the Government of India in November 2016.
- As a follow-up from the 6th Asian Ministerial Conference outcome (2014) and as a requirement of the Sendai Framework, the intended outcome of the conference in India was to adopt an 'Asia Regional Plan for Implementation of the Sendai Framework'.
- The AMCDRR 2016 provided a unique opportunity to shape the implementation and monitoring of the Sendai Framework in Asia.
- Established in 2005, the AMCDRR is a biennial conference jointly organized by different Asian countries and the United Nations Office for Disaster Risk Reduction (UNISDR).
- The next AMCDRR will be held in Monglia in 2018
- The two important documents – 'New Delhi Declaration' and the 'Asian Regional Plan for Implementation of the Sendai Framework'
- **New Delhi Declaration – Click Here**
- **Asian Regional Plan for Implementation of the Sendai Framework – Click Here**

Managing Risks of Disasters for Sustainable Development

Disaster and Development



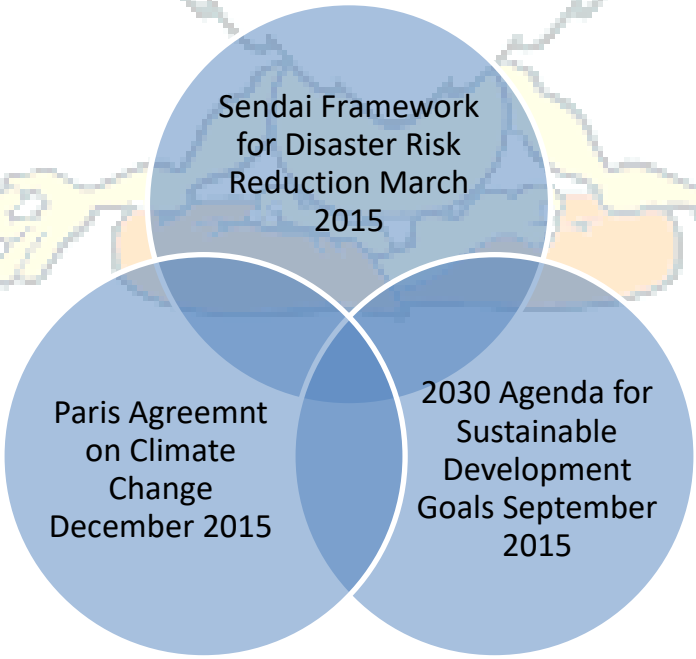
From Disaster Management to Disaster Risk Management

Disasters are intertwined with development in a three-dimensional nexus

- Disasters eat away hard earned gains of development of years and decades.
- Lack of development exposes vulnerable communities to the risks of disasters.
- Development creates new risks of disasters, such as houses and infrastructure without compliance of zoning and building regulations are vulnerable; mining and industries in ecologically sensitive zones may destroy the natural buffer to disasters, while fossil fuel based production and consumption enhance risks of climate related disasters.

Three dimensions of disaster-development nexus

Growing global concerns for disaster resilient sustainable development found a new direction and momentum in 2015 through three independent processes. They are Sendai Framework, the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change.

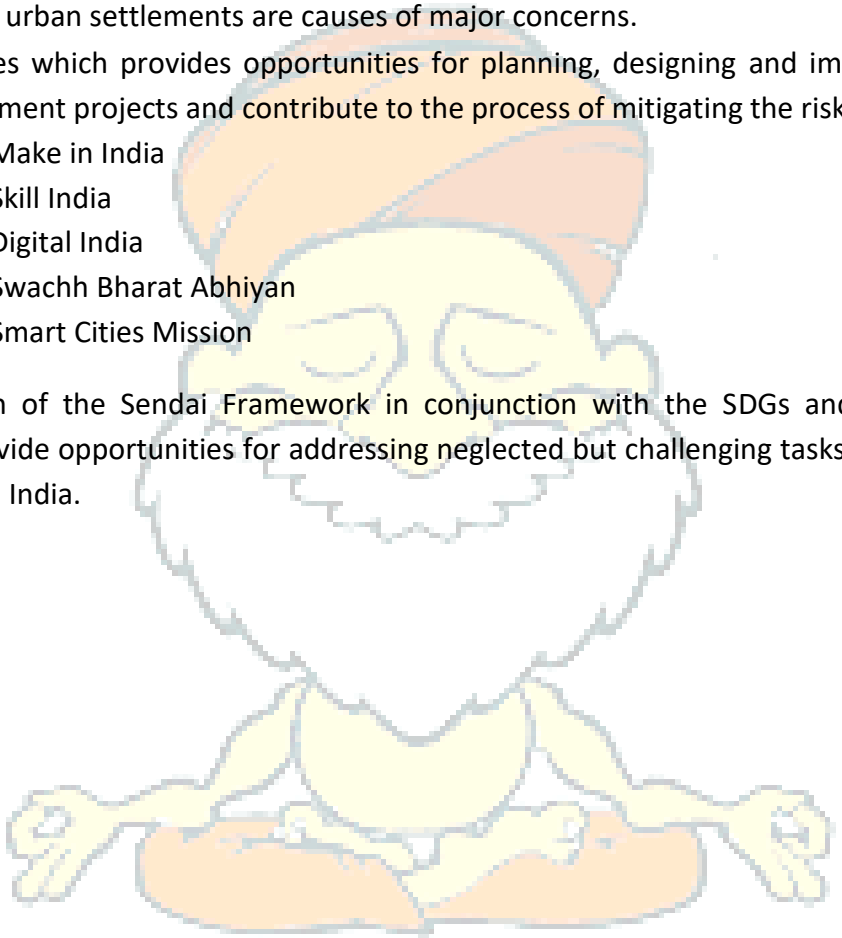


SUSTAINABLE DEVELOPMENT GOALS	TARGETS ON DISASTER RISK RESILIENCE
Goal 1: End poverty in all its forms everywhere	**Target 1.5:** Reduce exposure of the poor to climate related extreme events and disasters
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	**Target 2.4:** Strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters
Goal 3: Ensure healthy lives and promote well-being for all at all ages	**Target 3.6:** Develop early warning and reduce risk of health related disasters
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	**Target 4a:** Build and upgrade educational facilities that are safe from disasters
Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	**Target 9.1:** Develop quality and reliable infrastructure that are resilient to disasters
Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable	**Target 11.5:** Significantly reduce the number of deaths, affected and economic losses by disasters
Goal 13: Take urgent action to combat climate change and its impacts	**Target 13.1:** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters
Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	**Target 15.3:** Restore land affected by drought and floods

Challenges and Opportunities

- India has put in place legal and institutional mechanisms at various levels and deployed scientific and technological capabilities for disaster risk management.
- However similar results were not seen in hydrological disasters like floods or cloudbursts
- Technological disasters like industrial or road accidents continue to spiral; threats of biological disasters like epidemics and pandemics loom large, while environmental disasters like depleting water resources and rising level of air pollution in rapidly growing urban settlements are causes of major concerns.
- Initiatives which provides opportunities for planning, designing and implementing the development projects and contribute to the process of mitigating the risks of disasters
    - Make in India
    - Skill India
    - Digital India
    - Swachh Bharat Abhiyan
    - Smart Cities Mission

Implementation of the Sendai Framework in conjunction with the SDGs and Paris Climate Agreement provide opportunities for addressing neglected but challenging tasks of disaster risk management in India.



National Disaster Response Force

About

- NDRF is a most viable and vibrant multi-disciplinary, Multi skilled, high force capable of dealing with all types of natural as well as manmade disasters and to mitigate the effects of disasters.
- Aftermath of 2004 Tsunami disaster, Disaster management Act was enacted.
- The specialised force to tackle the disaster is needed.
- So, NDRF comprising of 8 battalions (two battalions from each BSF, CRPF, ITBP and CISF) is raised in 2010 two battalions (one form CRPF and BSF) and in 2015 two more form SSB inducted and now it contains 12 battalions.
- It is under the control of Ministry of Home Affairs.

Role of NDRF

- Provide specialized response for rescue and relief in case of disasters - natural or manmade.
- Deployment in case of impending disaster
- Assistance of civil authorities in distribution of relief material during/after disaster.
- Co-ordination with other agencies engaged in rescue/relief work.

United Nations Disaster Assessment and Coordination (UNDAC)

The United Nations Disaster Assessment and Coordination (UNDAC) is part of the international emergency response system for sudden-onset emergencies.

It is designed to help the United Nations and governments of disaster-affected countries during the first phase of a sudden-onset emergency.

The office for the Coordination of Humanitarian Affairs (OCHA) at the request of the government affected by a disaster dispatches a UNDAC team to the country within 12 to 48 hours anywhere in the world.