



Women Related Data: NFHS 5

Why in News

Recently, the latest data from the [National Family Health Survey \(NFHS 2019-21\)](#) has been released.

- Earlier in 2020, the [first-phase data of the NFHS-5 2019-20](#) was released by the Ministry of Health and Family Welfare, which provided data on various issues related to women in India.

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EXCERPTS FROM NFHS SURVEY		
WOMEN'S EMPOWERMENT (WOMEN AGE 15-49 YEARS)		
	2020-21	2015-16
Participation of married women in household decisions	92%	73.8%
Women who worked in last 12 months and paid in cash	24.9%	21.1%
Women owning a house and/or land (alone or jointly)	22.7%	34.9%
Women having a bank or savings account that they use	72.5%	64.5%
Women having a mobile phone that they themselves use	73.8%	66.6%
NUTRITIONAL STATUS OF ADULTS (AGE 15-49 YEARS)		
	2020-21	2015-16
Women whose Body Mass Index (BMI) is below normal	10%	14.9%
Men whose Body Mass Index (BMI) is below normal	9.1%	17.7%
Women who are overweight or obese	41.3%	33.5%
Men who are overweight or obese	38%	24.6%
Average out-of-pocket expenditure per delivery in a public health facility (in Rs)	2,548	8,518
Women who have ever used the internet	63.8%	NA
Men who have ever used the internet	85.2%	NA
Households with any usual member covered under a health insurance/financing scheme	25%	15.7%

Key Points

▪ Prevalence of Child Marriage:

- The share of **women aged 20-24** who married before turning 18 has **declined from 27% to 23% in the last five years.**
 - **Child marriage** is a key determinant of high fertility, poor maternal and child health, and lower social status of women.
- **West Bengal and Bihar**, with around 41% such women each, had the highest prevalence of girl child marriage.
- The maximum reduction in the proportion of underage marriages was observed in **Rajasthan, Madhya Pradesh, and Haryana.**

▪ Rampant Anaemia:

- As many as **57% women aged 15-49 were anaemic in 2019-21**, compared to 53% in 2015-16, while the same for men rose from 22.7% to 25%.
- The most formidable increase—**8.5% was observed for children** aged 6-59 months (67.1%).
- **Among larger states**, West Bengal and Kerala reported the **highest and lowest prevalence**, respectively, of anaemic women.
- **Child anaemia rates worsened** the most in Assam, Mizoram, Chhattisgarh, and Odisha.

▪ Improving Amenities:

- All states, except Manipur, Meghalaya, Assam and Jharkhand, had **over 90% population** with access to improved drinking water sources.
- Bihar, Jharkhand etc states had almost doubled the access since 2015-16, but most **fell below the 75% mark.**

▪ Women who own House:

- The **number of women who own a house or land in Delhi**, either alone or jointly, has **significantly dipped** over the past five years.
- While the percentage of women who had a house or land registered in their name in 2015-16 was around 35%, it dipped to 22.7% in 2020-21.

▪ Women who have a Bank Account:

- It has **gone up 8%** and women who have a mobile phone that they use is **up by 7%**.

▪ Access to Internet:

- The percentage of women who have **ever used the internet** was around **64%** as compared to 85% men. This data was **not available in the previous survey.**

▪ Participation in the Household Participation:

- It has gone up from around 74% in 2015-16 to 92% now. The **participation of married women in household decisions** includes health care for self, making major household purchases, and visits to her family or relatives, etc.

▪ Out-of-Pocket Expenditure:

- It went from Rs 8,518 to Rs 2,548 in five years. Average out-of-pocket expenditure has **seen a significant improvement** in the per delivery in a public health facility.

▪ Rise in Obesity:

- Obesity among both men and women has risen. While **41.3% of women are now overweight or obese, this figure is 38% for men.**
- The rise in the percentage of men who are overweight or obese, however, has been faster in men than in women.

▪ High Malnutrition:

- The share of under-five children who were stunted (too short for age), wasted (low weight

- for height), or underweight has declined.
- However, **every third child still suffers** from chronic undernourishment, and every fifth child is acutely malnourished.
 - **Stunting:** Meghalaya had the prevalence, followed by Bihar while Rajasthan, Madhya Pradesh, Jharkhand recorded declines of 5-7% since 2015-16.
 - **Wasting:** Bihar had the highest prevalence of underweight children, followed closely by Gujarat.

National Family Health Survey (NFHS)

- The [National Family Health Survey \(NFHS\)](#) is a large-scale, multi-round survey conducted in a representative sample of households throughout India.
- The **Ministry of Health and Family Welfare (MoHFW)**, Government of India has designated the International Institute for Population Sciences (IIPS) Mumbai, as the nodal agency for providing coordination and technical guidance for the survey.
 - IIPS collaborates with a number of Field Organizations (FO) for survey implementation.
- The survey **provides state and national information** for India on:
 - Fertility, Infant and child mortality, the practice of family planning, Maternal and child health, Reproductive health, Nutrition, Anaemia, Utilization and quality of health and family planning services
- Each successive round of the NFHS has had two specific goals:
 - To **provide essential data on health and family welfare** needed by the Ministry of Health and Family Welfare and other agencies for policy and programme purposes.
 - To **provide information on important emerging health** and family welfare issues.
- The funding for different rounds of NFHS has been provided by USAID, the Bill and Melinda Gates Foundation, [UNICEF](#), [UNFPA](#), and **MoHFW** (Government of India).

Way Forward

- The NFHS findings are a **reminder of the urgent need to close gaps** in girls' education and **address the pathetic nutritional status of women and children.**
- Current times **require integrated and coordinated efforts** from all health institutions, academia and other partners directly or indirectly associated with the health care services to make these services accessible, affordable and acceptable to all.

[Source: IE](#)

Women Participation in STEM

Why in News

Recently, India-Israel Women in [Science, Technology, Engineering and Mathematics \(STEM\)](#) conference was held.

- The **need for introducing flexible work times** and **gender-neutral pays** to enhance women participation in STEM was highlighted.

STEM

▪ About

- The STEM acronym was **introduced in 2001** by scientific administrators at the U.S. National Science Foundation (NSF).
- The organization previously **used the acronym SMET** when referring to the career fields in those disciplines or a curriculum that integrated knowledge and skills from those fields.
- It is a **curriculum based on the idea of educating students** in 4 specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach.
- **India is one of the countries** that produce the **highest number of scientists and engineers**, the growth of STEM has picked up significantly over the last few years.
 - **Under Article 51A of the Constitution of India**, it is a duty of every citizen of India to develop the scientific temper, humanism and the spirit of inquiry and reform.

▪ Significance:

- A **robust STEM education creates** critical thinkers, problem-solvers, and next-generation innovators.
- According to the **National Science Foundation**, it is predicted that 80% of the jobs created in the next decade will require some form of math and science skills.

Key Points

▪ Participation of Women in STEM:

- About **43% of STEM graduates in India** are women, which is the highest in the world, but their share in STEM jobs in India is a mere 14%.
- In Indian STEM, the **primary concern** has never been with the **number of women graduates**, but with the proportion of those who ultimately land STEM jobs.
- S&T has **translated into the economic sphere** and institutions are structured so, Science & Technology (S&T) could **become a changemaker in society** by introducing flexible work times, and gender-neutral pays to enhance women participation in STEM.
- Greater women's participation in the tech sector will **make women more strong and influential**, giving a boost to their socio-economic situation in the society.

▪ Reasons for the Low Participation:

- **Stereotypes:** The paucity of women in STEM is **not merely due to skill inadequacy**, but also a result of **assigned stereotypical gender roles**.
- **Patriarchy:** There are **patriarchal attitudes in hiring practices** or awarding fellowships and grants etc.
- **Society:** Lack of role models, pressures to conform to societal norms and trappings of domesticity.
- **Stress:** Stressors related to marriage, childbirth etc.
- **Household Responsibility:** Responsibility **related to running of households and elder care**.
- **Physical Safety:** Physical safety during the commute to work.
- **Harassment:** Sexual and other types of harassment in workplaces, etc.

▪ Initiatives to Promote Women Participation:

◦ Vigyan Jyoti Scheme:

- It is launched by the **Department of Science & Technology (DST)**.
- It is intended to **create a level-playing field** for the meritorious girls in high

school to pursue Science, Technology, Engineering, and Mathematics (STEM) in their higher education.

- It also **offers exposure for girl students from the rural background** to help to plan their journey from school to a job of their choice in the field of science.
- **GATI Scheme:**
 - The **[Gender Advancement for Transforming Institutions \(GATI\)](#)** will develop a comprehensive Charter and a framework for assessing Gender Equality in STEM.
- **Knowledge Involvement Research Advancement through Nurturing (KIRAN):**
 - Launched in 2014-15, the scheme provides opportunities for women scientists in moving up the academic and administrative ladder.
 - **One of the programmes under the [KIRAN scheme](#) — ‘Women Scientist Scheme’** — provides career opportunities to unemployed women scientists and technologists, especially those who had a break in their career.

Way Forward

- The **problem needs to be addressed at two levels** – at societal level which requires long term effort and the policy and institutional level, which can be started with immediate effect.
- There is an **immediate need to invest in supporting infrastructure, incentivising institutions** to promote gender equity, transparency in decision making etc. to bridge the persisting gender imbalance in STEM majors.
- As a first step, however, **schools need to break the ‘gendered notions of intelligence’** and encourage girls not only to take science at secondary and higher secondary level but also to pursue their career in STEM.
 - This would help not only in women being able to chase their dreams but **science itself would be benefitted from other points of view.**
- While the **situation is definitely improving**, and the increase in numbers of women in STEM is indicative of this, the road is yet long. We have a long way to go.

[Source: PIB](#)

Constitution Day: 26th November

Why in News

The **Ministry of Law & Justice** has launched **‘Online Course on Indian Constitution’** on the eve of **‘[Constitution Day](#)’** as a part of celebrations of **‘[Azadi Ka Amrit Mahotsav](#)’** for **75 years of India’s Independence**.

- The online course aims to **enhance the awareness of the constitutional values** to understand the fundamental rights and duties.
- It will also **help the citizens familiarize with the glorious constitutional journey** and to **understand the supreme law of the land** including the right to life, personal liberty and privacy issues.

Key Points

- **About:**
 - It is celebrated on **26th November** every year.

- It is also known as **National Law Day**.
- On this day in 1949, the **Constituent Assembly of India formally adopted the Constitution of India** that came into force on 26th January 1950.
- The Ministry of Social Justice and Empowerment on 19th November 2015, notified the decision of the Government of India **to celebrate 26 November as 'Constitution Day'**.

▪ **Framing of Constitution:**

- In 1934, **M N Roy** first proposed the idea of a constituent assembly.
- Under the Cabinet Mission plan of 1946, elections were held for the **formation of the constituent assembly**.
- The Constitution of India is framed by the Constituent Assembly. The Constituent Assembly of India appointed a total of 13 committees to deal with different tasks related to the framing of the constitution.
- There were 8 major committees and the rest were minor ones. The list of **major committees** and their heads are mentioned below:
 - **Drafting Committee** - B. R. Ambedkar
 - **Union Power Committee** - Jawaharlal Nehru
 - **Union Constitution Committee** - Jawaharlal Nehru
 - **Provincial Constitution Committee** - Vallabhbhai Patel
 - **Advisory Committee on Fundamental Rights, Minorities and Tribal and Excluded Areas** - Vallabhbhai Patel.
 - **Rules of Procedure Committee** - Rajendra Prasad
 - **States Committee (Committee for Negotiating with States)** - Jawaharlal Nehru
 - **Steering Committee** - Rajendra Prasad

▪ **Facts about the Constitution of India:**

- World's **longhiest Constitution**.
- **Federal System** with **Unitary Features**.
- **Parliamentary Form of Government**.
- The framing of the Constitution took over **2 years, 11 months and 18 days**.
- The original copies of the Indian Constitution weren't typed or printed. They have been **handwritten** and are now kept in a helium-filled case within the library of the Parliament.
- **Prem Bihari Narain Raizada** had written the unique copies of the Structure of India.
- Originally, the Constitution of India was **written in English and Hindi**.
- The **basic structure of the Indian Constitution** stands on the [Government of India Act, 1935](#).
- The Constitution of India has also **borrowed some of its features** from a number of countries.

Indian Constitution Borrowed Features

1.	British Constitution	Parliamentary form of Government, Rule of Law, Law making procedure, Single Citizenship; Institution of Speaker, doctrine of pleasure tenure of civil servants.
2.	American Constitution	Judicial System, Fundamental Rights
3.	Canadian Constitution	Federal System with a strong central authority; Residual powers, Centre State Relation.
4.	Irish Constitution	Directive Principles, Election of the President of India
5.	Australian Constitution	Concurrent list; Freedom of Trade & Service within country
6.	Weimar Constitution	Emergency Provision
7.	Soviet Constitution	Five Year Plans; Fundamental duties
8.	Govt of India Act 1935	Office of the governor, powers of the federal jury.
9.	South African	Amendment of Constitution.

Further Reading

- [Preamble to the Indian Constitution](#)

- **Important Articles from Indian Constitution** ([Part I](#) and [II](#))
- **Fundamental Rights** ([Part-I](#) and [II](#))
- **Directive Principles of State Policy (DPSP)**
- **Parliament** ([Part-I, II](#) and [III](#))
- **Major Constitutional Amendments** ([Part-I, II](#) and [III](#))
- **Emergency Provisions**

[Source: PIB](#)

National Milk Day: 26th November

Why in News

Recently, the Ministry of Animal Husbandry & Dairying has celebrated the **National Milk Day (NMD)** on 26th November.

- **National Gopal Ratna Awards** were conferred to the winners of the respective stakeholders of Dairy sector and also launched **IVF (In Vitro Fertilization)** Lab at Dhamrod, Gujarat and Hessarghatta, Karnataka.
- Every year, the **first day of June** is observed as **World Milk Day**.

Key Points

▪ About:

- NMD is celebrated to commemorate the birth Anniversary of **Dr. Verghese Kurien (Milk Man of India)**.
 - NMD 2021 commemorates the **100th birth anniversary of Dr. Kurien**.
- The day celebrates **the importance of milk in a person's life**. And to promote the **benefits related to the milk & milk industry and to create awareness among people about the importance of milk** and milk products.

▪ **Dr. Verghese Kurien (1921-2012):**

- He is known as the **'Father of White Revolution in India'**.
- He **is famous for his 'Operation Flood'**, which is known as the **world's largest agricultural program**.
- He established 30 institutions that are **run by various farmers and workers**.



- He also played a key role in the **establishment and success of Amul Brand**.
- Because of his efforts only, India **became the largest producer of milk in 1998**, surpassing the U.S.
- He also helped manage the **Delhi Milk Scheme and corrected the prices**. He also helped India **become self-sufficient in edible oils**.
- He was honoured with several awards, including the **Ramon Magsaysay Award (1963)**, **Krishi Ratna (1986)** and **World Food Prize (1989)**.
- He is also the recipient of India's highest civilian awards- **Padma Shri (1965)**, **Padma Bhushan (1966)** and **Padma Vibhushan (1999)**.

▪ **Operation Flood:**

- **About:**
 - It was launched on 13th January, 1970. It was the world's largest dairy development programme.
 - Within 30 years, the operation **helped double milk available per person in India**, making dairy farming India's largest self-sustainable rural employment generator.
 - The operation gave **farmers direct control over the resources they create, helping them direct their own development**. This was achieved not only by mass production, but by production by the masses. It is also now known as the "**White Revolution**".
- **Phases of the White Revolution:**
 - **Phase I (1970-1980):** This phase was financed by the sale of butter oil and skimmed milk powder donated by the [European Union](#) through the World Food Program.
 - **Phase II (1981 to 1985):** During this phase, the number of milk sheds increased from 18 to 136, milk outlets were expanded to about 290 urban markets, a self-sustaining system was set up that included 4,250,000 milk producers spread across 43,000 village cooperatives.
 - **Phase III (1985-1996):** This phase enabled the dairy cooperatives to expand and gave a finishing touch to the programme. It also strengthened the infrastructure required to procure and market increasing volumes of milk.
- **Objectives:**
 - Increase milk production ("a flood of milk").
 - Increase rural incomes.
 - Reasonable prices for consumers.
- **Significance:**
 - It helped dairy farmers **direct their own development, placing control of the resources** they create in their own hands.
 - It has helped **India become the largest producer of milk** in the world in 2016-17.
 - Currently, India is the world's largest milk producer, with 22% of global production.

Indian Dairy Sector

- **About:**
 - India being the world's **largest milk producing country**, accounts for more than 22.0% of the world and 57% of Asia's total milk production.
 - The milk production of India has grown **from 17 million tonnes in 1951 to 187.7 million tonnes in the year 2018-2019**.
- **Significance:**
 - Dairy is the only **agri-product in which around ~70-80% final market value** is shared with farmers and **it accounts for approximately one-third of rural household income** in India.
 - It **improves farmer livelihoods, creates jobs, supports agricultural industrialization and commercialization, and enhances nutrition for the masses**.
- **Challenges:**
 - **Lack of proper packaging and labeling system** of milk and milk products.
 - **Lack of Market Intelligence** to understand the mindset of entrepreneurs.
 - Consumer perception/**Brand Building** is also a major challenge.
 - **Cold chain (transportation)** and storage facilities are not effectively in operation.
- **Related Initiatives:**

- **Gopal Ratna Awards:** They are National Awards for the Cattle and Dairy sector, the awards have been launched to promote the best herd of Indigenous Breed and practicing best management practices.
- **[e-Gopala \(Generation of wealth through Productive Livestock\) App:](#)** It is a comprehensive breed improvement marketplace and information portal for direct use of farmers.
- **National Action Plan on Dairy Development 2022:** It seeks to increase milk production and double the income of dairy farmers.
- **[National Animal Disease Control Programme & National Artificial Insemination Programme:](#)** It was launched to control and eradicate the Foot & Mouth Disease (FMD) and Brucellosis amongst the livestock in the country,
- **Pashu-Aadhar:** It is a unique ID on a digital platform for traceability for the animals.
- **[Rashtriya Gokul Mission:](#)** It was launched in 2019 for the setting up of 21 Gokul Grams as Integrated Cattle Development Centres.

[Source: PIB](#)

Integrated Command and Control Centres

Why in News

The **Ministry of Housing and Urban Affairs (MoHUA)** has begun work to finalise its recommendation for providing **Integrated Command and Control Centres (ICCCs)** as a service to states and smaller cities.

Key Points

▪ About:

- The **[Smart Cities project](#)**, which aims at developing **100 citizen-friendly and self-sustainable urban settlements**, includes setting up ICCCs for **each city** as a vital step.
- These ICCCs, designed **to enable authorities to monitor the status of various amenities in real time.**
- Initially aimed at controlling and monitoring water and power supply, sanitation, traffic movement, integrated building management, city connectivity and Internet infrastructure.
 - However, these centres will now also monitor various other parameters and are also linked to the **[CCTNS \(Crime and Criminal Tracking Networks and Systems\) network](#)** under the Ministry of Home Affairs (MHA).
- The MoHUA aims to finalise the ICCC model and implement a pilot project across six major states — **Uttar Pradesh, Maharashtra, Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu.**
- So far, these ICCCs have been operationalised in 69 cities, with **Agartala, Indore and Vadodara ranked the best for a sustainable business model** of these centres.

▪ Smart City Mission:

- **About:** It is an innovative initiative under the **Ministry of Housing and Urban Affairs**, to **drive economic growth and improve the quality of life of people** by enabling local development and harnessing technology as a means to create smart outcomes for citizens.

- **Objective:** To promote cities that **provide core infrastructure** and give a decent quality of life to its citizens, a clean and sustainable environment and application of Smart Solutions.
- **Focus:** On **sustainable and inclusive development** and to look at compact areas, create a replicable model which will act like a lighthouse to other aspiring cities.
- **Strategy:**
 - Pan-city initiative in which at least one Smart Solution is applied city-wide.
 - Develop areas step-by-step with the help of these three models:
 - Retrofitting.
 - Redevelopment.
 - Greenfield.
- **Coverage and Duration:** The Mission covers 100 cities for the duration of five years starting from the financial year (FY) 2015-16 to 2019-20.
- **Financing:** It is a **Centrally Sponsored Scheme**.

[Source: IE](#)

Multisystem Inflammatory Syndrome in Children

Why in News

Recently, the [World Health Organization \(WHO\)](#) has released fresh guidelines for treating children who developed [Multisystem Inflammatory Syndrome \(MIS-C\)](#) after being exposed to [Covid-19 infection](#).

Key Points

▪ About:

- MIS-C is a condition where **various organs of the body are affected by inflammation**. The patient develops heart problems, the severity of which may determine the line of treatment.
- It is a **rare but severe hyperinflammatory condition** in children and adolescents that **typically occurs 2-6 weeks after a Covid-19 infection**.
- It is a potentially deadly condition where different body parts can become inflamed, including the **heart, lungs, kidneys, brain, skin, eyes, or gastrointestinal organs**.
- Children with MIS-C may have a fever and **various symptoms**, including abdominal (gut) pain, vomiting, diarrhea, neck pain, rash, bloodshot eyes, or feeling extra tired.

▪ MIS-C with Neurological Complications:

- In a recent study, **young people with the MIS-C syndrome have shown neurological issues** which were life-threatening such as strokes or severe encephalopathy (any brain disease that alters brain function or structure).
- **Neurological symptoms** include hallucinations, confusion, speech impairments, and problems with balance and coordination.
- The new findings strengthen the theory that the **syndrome is related to a surge of inflammation triggered by an immune response** to the virus.

▪ Causes of MIS-C:

- As the Syndrome is less researched, there are **varied theories** as to what causes MIS-C.
- While some researchers believe that **MIS-C is a delayed response to the coronavirus** which in turn causes massive inflammation in the body and as a result damages organs.

- Others believe that it can also **be a result of the children's immune response making antibodies against the virus.**
- There may be a **genetic component as not every child develops MIS-C** and the presenting symptoms are so varied.
- **WHO Guidelines for Treatment:**
 - It is suggested to use **corticosteroids in addition to the standard of care for Kawasaki disease** (conditional recommendation, very low certainty) in hospitalised children (**0-18 years of age**).
 - Commonly referred to as steroids, **corticosteroids are a type of anti-inflammatory drug.**
 - Corticosteroids along with supportive care resulted in a more effective treatment than either **intravenous immunoglobulin plus supportive care** or supportive care alone.
 - The treatment was also found to be effective in treating children with **Kawasaki disease** in association to **Covid-19.**
 - Not to use corticosteroids in the treatment of patients **with non-severe Covid-19 as the treatment brought no benefits**, and could even prove harmful.

Kawasaki Disease

- It is an **acute inflammatory disease of the blood vessels** and usually occurs in children below the age of five.
- The inflammation in the coronary arteries that are responsible for supplying blood to the heart **results in enlargement or in the formation of aneurysms** (swelling of the wall of an artery), leading to heart attacks.
- **Symptoms:** Fever, rashes, redness of the cornea, red and cracked lips, a red tongue and lymph node enlargement of the neck.

[Source: DTE](#)

Tundra Satellite System: Russia

Why in News

Recently, Russia has successfully placed into **orbit a military satellite**. The satellite is believed to be a **Tundra Satellite**, part of **Russia's early warning anti-missile system named Kupol or dome**.

Key Points

- **About:**
 - Tundra satellite system is a **constellation of Missile Early Warning Satellites** established by Russia between 2015 and 2020.
 - It carries a secure emergency communications payload to be used in case of a **nuclear war**.
 - It is a series of satellites that are the next generation of Russian early warning satellites to replace the early warning satellites of the **Oko-1 system**.

- This final **Oko (Eye) satellite (missile defence early warning program)** reportedly stopped operating in mid 2014, leaving Russia relying on ground-based missile detection systems.
- They are part of the **EKS or Unified Space System (USS-Also sometimes referred as Kupol or dome)**, which will also include several satellites in geostationary orbit.
 - Unveiled in 2019, Kupol is designed to detect launches of [ballistic missiles](#) and track them to their landing site, **though its exact configuration is unknown.**

▪ **Anti-Missile Defence Systems With India:**

◦ **S-400 TRIUMF:**

• **About:**

- India has [S-400 TRIUMF](#), which also caters to the three threats (rockets, missiles and cruise missiles). But they have a much longer range.
- It has a much larger air defence bubble to knock off threats.
- It is a mobile, **surface-to-air missile system (SAM)** designed by Russia.

• **Range & Effectiveness:**

- The system can engage all types of aerial targets within the range of 400km, at an altitude of up to 30km.
- The system can track 100 airborne targets and engage six of them simultaneously.

◦ **Prithvi Air Defence and Advance Air Defence:**

• **About:**

- It is a double-tiered system consisting of two land and sea-based interceptor missiles, namely the **Prithvi Air Defence (PAD)** missile for high altitude interception, and the **Advanced Air Defence (AAD) Missile** for lower altitude interception.

• **Range:**

- It is able to **intercept** any incoming missile launched **5,000 kilometres** away. The system also includes an overlapping network of early warning and tracking radars, as well as command and control posts.

◦ **Ashwin Advanced Air Defence Interceptor Missile:**

• **About:**

- It is also an indigenously produced Advanced Air Defence (AAD) interceptor missile developed by [Defence Research and Development Organisation \(DRDO\)](#).
- It is the advanced version of the low altitude supersonic ballistic interceptor missile.
- The missile also has its own mobile launcher, secure data link for interception, independent tracking and homing capabilities and sophisticated radars.

• **Range:**

- It uses an endo-spheric (within the Earth's atmosphere) interceptor that knocks out ballistic missiles at a maximum altitude of 60,000 to 100,000 feet, and across a range between 90 and 125 miles.

▪ **Other Anti-Missile Defense System:**

- [Iron Dome: Israel](#)
- [Terminal High Altitude Area Defense \(THAAD\): US](#)

Source: TH

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