



APPOLO

STUDY CENTRE

Test -2

9th social science - civics

Unit - 3 Human Right

Introduction

The lesson travels through the history of organisations for human rights. The rights ensured by the Universal Declaration of Human Rights being highlighted. Fundamental rights are enshrined in the Indian Constitution and fundamental duties incorporated in the Constitution along with the introduction to National and State Human Rights Commissions and their functions are explained. Extended rights like child rights, SC and ST rights, women rights, labour rights, etc., are also discussed.

On 7th June 1893, while a person was on his way to Pretoria, in South Africa a white man objected the person's presence of a non-white man in a first class carriage and the person was ordered to move to a van compartment at the end of the train. The man who had the first-class ticket refused to leave and was thrown off the train at Pietermaritzburg. Shivering in the winter night in the waiting room of the station changed the course of his life. He took up the fight against racial oppression. The spirit for active non-violence started from that moment.

Mahatma Gandhi made the momentous decision to stay on in South Africa and fight racial discrimination against the Indians. Out of that struggle emerged his unique way of protest nonviolent Satyagraha.

As a human being, Gandhi had all the rights to travel in the first class compartment. But he was discriminated because of his skin colour. Discrimination is not only based on colour, it is on the basis of race, gender, place of birth, caste, religion and so on.

Due to these discriminations, people are prohibited from enjoying their basic human rights.

Human Rights

The U.N.O defines Human rights as “The right inherent to all human beings, regardless of race, gender, nationality, ethnicity, language, religion or any other status. Everyone is entitled to these rights without discrimination.”

Universal Declaration of Human Rights (UDHR)

The Universal Declaration of Human Rights is a milestone document in the history of human rights. It was drafted by the representatives with different legal and cultural backgrounds from all regions of the world. The Declaration was proclaimed by the United Nations General Assembly in Paris on 10th December 1948 (General Assembly resolution 217A) as a common standard of achievement of all people and all nations. The first time it sets out the fundamental human rights to be universally protected and the UDHR has been translated into many languages.

There are 30 articles in the Universal Declaration of Human Rights and it guarantees freedom of expression as well as civil, political, social, economic and cultural rights. These rights apply to all people, irrespective of their race, gender and nationality, as all people are born free and equal.

This general explanation of Human Rights by UDHR is not a legally binding document; however it has a political and moral importance and many of its guarantees have become standard norms today.

Social, Economic and Cultural Rights

Social, economic and cultural rights are integral part of the human rights law that developed due to the aftermath of World War II. Social rights are necessary for full participation in the society. Economic rights guarantee every person to have conditions under which they are able to meet their needs. They are a part of a range of legal principles through which economic equality and freedom are preserved in a State.

Cultural rights are human rights that aim at assuring the enjoyment of culture and its components in conditions of equality, human dignity and non-discrimination.

Civil and Political Rights

Civil and political rights protect an individual's freedom from infringement by the government, social organizations and private individuals. These rights ensure one's ability to participate in the civil and political life of the society and state.

The term 'Civil rights' refers to the basic rights afforded by laws of the government, to every person regardless of race, nationality, colour, gender, age, religion etc.,

Political rights exercised in the formation and administration of a government. They are given to the citizens by law. These rights give power to the citizens to participate either directly or indirectly in the administration.

Fundamental Rights in India

Fundamental rights are required for the all round development of a human being. They make the life of people meaningful by giving them rights like speech and to live in an area of their choice.

The fundamental rights are :

- Right to Equality
- Right to Freedom
- Right against Exploitation
- Right to Freedom of Conscience and Religion
- Cultural and Educational Rights for minorities
- Right to Constitutional Remedies

Right to Equality

It refers to equality before law and equal protection of law. Prohibition or discrimination on the grounds of religion, caste, races, gender or place of birth is offensive and one can seek justice from court

Right to Freedom

Six different types of freedom are mentioned in the Constitution. They are:

- a. Freedom of speech and expression.
- b. Freedom to assemble peacefully without arms.
- c. Freedom to form associations and unions.
- d. Freedom to reside and settle in any part of India.
- e. Freedom to move freely throughout the territory of India.
- f. Freedom to practice any profession and carry on any occupation, trade or business.

Right against Exploitation

It is against the law to employ children below 14 years of age in mines, factories or other occupations. Neither contractor nor an employer can force a worker to do a job against their will.

Right to Freedom of Conscience and Religion

This right gives the citizens freedom to follow and practice a religion of their choice. All citizens have the freedom of conscience or ideas. The citizens also have the freedom to follow their own ways for practicing any religion.

Cultural and Educational Rights

The Constitution gives us the right to preserve, protect and promote culture. We have the right to open schools, associations and societies to preserve and promote our tradition and culture. Similarly a group of people may open a school for imparting religious education to children. The government also promotes such activities by giving grants. However, such institutions cannot deny admission to anyone based on their caste, colour, creed or even religion.

Differences Between Human Rights and Fundamental Rights	
Human Rights	Fundamental Rights
The rights that a human being deserves to survive with respect and freedoms.	The elemental rights of the citizens of a country, which are listed in the constitution and enforceable under the law is known as fundamental

	rights.
Human rights include those rights which are basic to a real life and are absolute, i.e. it cannot be taken away.	Fundamental rights include only those rights which are basic to a normal life.
Human rights are recognised at international level.	Fundamental rights are guaranteed under the constitution of the country.

Human rights as declared by the UN, suggest minimum standards of rights to be adopted by Government and these serve more or less like Directive Principles.

Right to Constitutional Remedies

Fundamental Rights are guaranteed by the Constitution. By this right, a person can adopt Constitutional means and approach a court if he is denied the Fundamental Rights. The court then issues orders which are called 'Writs' to the government to restore the rights to the citizen. The Constitutional Remedies put to right anything which may be wrong in terms of the Constitution. This right therefore protects and safeguards all other rights.

Fundamental Duties

These are in the form of duties and responsibilities of citizens. 'The original Constitution which came into force with effect from 26th January, 1950 did not contain Fundamental Duties.

These were incorporated in the Constitution by the 42nd Amendment Act in 1976. The Constitution states eleven Fundamental Duties as given below:

1. Respect for the Constitution and its ideals and institutions, the National Flag and the National Anthem.
2. To follow and cherish the noble ideals which inspired our National Struggle for freedom.
3. To uphold and protect the sovereignty, unity and integrity of India.
4. To defend the country and render national service when called upon to do so.
5. To promote harmony and spirit of common brotherhood amongst all the people of India, transcending religious, linguistic, regional or sectional diversities, to renounce practices derogatory to the dignity of women.
6. To value and preserve the rich heritage of our composite culture.

7. To protect and improve the natural environment including forests, lakes, rivers and wildlife and have compassion on living creatures.
8. To develop the scientific temper, humanism and the spirit of inquiry and reform.
9. To safeguard public property and to abjure from violence.
10. To strive towards excellence in all spheres of individual and collective activity, so that the nation constantly rises to higher levels of endeavor and achievements.
11. To provide opportunities for education by the parent and guardian to their child or ward up to the age of 14 years.

Maintenance and welfare of parents and Senior Citizens Act, 2007 is a legislation passed in 2007 by the Government of India. This Act is a legal obligation for children and heirs to provide maintenance to senior citizens and parents.

National Human Rights Commission

The National Human Rights Commission is an autonomous body constituted on **12th October 1993** under the protection of Human rights Act, 1993. It consists of a chairman and few other members. NHRC is responsible for the protection and promotion of human rights in India defined by the Act as rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the international covenants.

Functions of NHRC

- To inquire into the violation of human rights or negligence in the prevention of such violation by a public servant
- To intervene in court proceedings relating to human rights
- To undertake and promote research in the field of human rights
- To engage in human rights education among various sections of society
- To encourage the effects of NGOs and institutions working in the field of human rights.

State Human Rights Commission (SHRC)

Every state in India has a **State Human Rights Commission** established in accordance with the power conferred on the state under section 21 of the

Protection of Human Rights Act, 1993. The protection and promotion of human rights constitute the principal concern of the Commission. Moreover, the procedures adopted by the Commission to conduct its proceedings, the suo motu actions taken on complaints regardless of the sources received and the transparency of the proceedings of the SHRC add strength to its functioning in a state.

Functions of SHRC

- The SHRC shall enquire into violation of human rights in respect of matters specified in the state and concurrent lists.
- Its objectives and duties are the same as NHRC, but confined only to the state. It has a chairman and two members.
- It has the power of a civil court and can take cognizance of cases if received or in suo motu.
- It can also recommend compensation to victims.

Child Rights

Apart from the fundamental rights described by the Constitution, we have to ensure certain other rights. A child is a person who has not completed the age of 18 years i.e. a minor as per UNO. This principle is exhibited in Article 25 of the Universal Declaration of Human Rights. Based on these principles, the declaration of the Rights of the child was accepted and adopted in the UN General Assembly on 20th November, 1989.

- Right to life
- Right to family environment
- Right to Education
- Right to benefit from Social security
- Right against sexual exploitation
- Right against sale or trafficking
- Right against other forms of exploitation like Child labour.

Right to life

A child has the right to survive even before its birth. The right to survival also includes the right to be born, the right to basic needs of food, shelter and clothing and a dignified living.

Right to Family Environment

A child has the right to live a normal childhood in a family environment. Children who have been left destitute, abandoned or orphaned also have the right to live. These children can be given for adoption to caring families.

Right to benefit from Social security

Children should get financial support from the country when their parents or guardians are unable to provide them with a good standard of living by themselves, due to any illness, disability or old age

Right to Education

Right to Education Act is an Act of the Parliament of India enacted in 2009 for free and compulsory education for children from 6 to 14 years of age as under Article 21A of the Constitution.

Right against sale or trafficking

Children should be treated as individuals with fundamental human rights. Children are vulnerable. There are root causes such as poverty, gender discrimination, broken families etc., behind the sale or trafficking of children.

Children are subjected to sale or trafficking for various reasons - economic exploitation, sexual exploitation, sexual abuse, drug trafficking and child labour.

The Kavalan SOS App is launched by the Government of Tamil Nadu for public use during emergencies. Anyone in a critical situation, not only women, can easily and directly access the State Police Control Room using this App.

Right against sexual exploitation

The state should protect children from sexual exploitation and abuse, when they are forced or persuaded to take part in sexual activities physically or mentally.

Right against other forms of exploitation like Child labour

Children are often employed in several industries. These children are deprived of their childhood, health and education. This will lead to a life of poverty and want. These children are made to work in glass, match-box, lock-making factories, rag-picking, carpet - making industry, beedi - rolling, mining, stone quarrying, brick kilns and tea gardens etc. Work is mostly gender - specific, with girls performing more home - based work, while boys are employed as waged labour. Since these children work in agricultural fields, restaurants, motor repair workshops and home - based industries, elimination of child labour remains a challenge.

Kailash Satyarthi is a Nobel Peace Prize recipient and the founder of Bachpan Bachao Andolan, and many other child rights organisations. More than 86,000 children in India have been liberated by him and his team members from child labour, slavery and trafficking. An 80,000 km long Global March against Child Labour was led by Kailash in 1998 which turned the world's attention towards the issue of Child labour. He received Nobel prize for peace in the year 2014.

Women Rights

The National Commission for Women (NCW) is constituted in India to review the Constitutional and legal safeguards for women, recommends remedial measures and advises the government on all matters of policy affecting the welfare and development of women in the country.

In modern India, women have held high offices including that of the President, Prime Minister, Speaker of the Lok Sabha, Leader of the Opposition, Union Ministers, Chief Ministers and Governors.

Women's rights under the Constitution of India mainly include equality, dignity, and freedom from discrimination; additionally, India has various statutes governing the rights of women.

Reservations

The state of Tamil Nadu provides 69% of reservation to the Scheduled Classes, Scheduled Tribes, Backward Classes, Most Backward Classes, Most Backward Classes, Denotified communities and Minorities. in employment and educational institutions. Government of Tamil Nadu provides inner reservations for Muslims in BC and for Arunthathiyar in SC category. The

following table gives us a very clear picture of the percentage of reservations for various communities by the Government of Tamil Nadu.

Communities	Reservation in (%)
Backward Classes	26.5
Backward Class Muslims	3.5
Most Backward Classes / Denotified Communities	20
Scheduled Castes	18
Scheduled Tribes	1
Total	69

Under each reserved category and in General category 33% is reserved for women and 4% is reserved for differently abled persons. Special reservation offered to Arunthathiyars within the seats reserved for Scheduled castes. For persons studied in Tamil medium 20% seats are offered under each category on priority basis.

Right to Information Act (RTI)

The Right to Information Act is a revolutionary act that aims to promote transparency in the government institutions in India. This act was enacted in October 2005.

A common man can demand any government organization to provide information. The information must be provided within thirty days. If not, a fee will be collected as penalty from the concerned official.

It is one of the most powerful laws of the country. This act is people friendly; even an illiterate person can ask any Public Information Officer to write it down for him. All government agencies like Municipal Corporations, Government departments, Government Schools, Road Authorities, etc., come under this Act.

Through RTI one can get even copies of government documents such as records, reports, papers, etc., Personal information of individuals and organizations related to the country's defence and intelligence, such as BSF, CRPF, Intelligence Bureau are exempted from the RTI.

- Sign the Application form with your full name and address along with the date and send it through a registered post to the office of the concerned authority.
- If a reply is not received within 30 days, an appeal can be filed with the Appellate Authority.

Labour Rights

The Constitution ensures right to equality, equality of opportunity in public employment, right to form associations and unions, right to livelihood, prohibits trafficking, forced labour and child labour. Article 39(d) ensures equal wages to male and female workers for equal work.

“The rights of every man are diminished when the rights of one man are threatened” said John F. Kennedy. Civilized nations of the world insist on equality. Nations pay more attention on human rights to ensure equality. This helps in maintaining peace, harmony and development of the country.

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UNIT 5 - LOCAL SELF GOVERNMENT

Meaning of Local Self Government

Local Self-Governments are institutions that look after the administration of an area or a small community such as a village, a town or a city. Local Self- Government operates at the lowest level of society. It works at the grassroot level, close to the people, touching their everyday life. Local Self-Government is the management of local affairs by such local bodies which have been elected by the local people. These local bodies provide services to the local community as well as act as an instrument of democratic self-government.

Historical Background

The idea of local self-government is a very old concept in India. It was at its peak under the later Cholas or the Imperial Cholas of Tanjore. There are historical records of references to local self-government under Mauryan administration. Local self-government existed throughout the country with its own diverse characteristics of ancient India. During the medieval period, local self-governments had somewhat declined due to the onslaught of feudalism. It was revived during the British period in the last quarter of the 19th century, with Western orientation of training in democracy with Lord Ripon's Resolution in 1882. Lord Ripon was known as the 'Father of Local Government for laying the foundations of local self-governments in modern times. Under the Government of India Act, 1935 provincial autonomy was introduced. This Act came into force in 1937. In the provinces where the Congress formed its Government, rural development received special attention. It was an essential part of Gandhi's programme that Panchayat Raj institutions would be built from villages to the highest level.

After Independence, the Gandhian ideal of Grama Swaraj (Village Republic) greatly influenced the constitution makers. India being the land of villages, the creation of village panchayats became a social movement. Restoration of panchayats has become an article of faith during our freedom struggle. Hence with the dawn of independence and framing of the constitution of India, Article 40 was incorporated in the constitution which reads as: "the State should take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as the units of self-Governments."

Lord Ripon

Lord Ripon was the one who gave Indians the first taste of freedom by introducing the Local Self Government in 1882. Ripon took some steps towards liberalizing the administration in India. He formulated the local self government and made it clear that he was advocating for the decentralization of administration.

He tried to remove obstacles in the sphere of Local Self government by his resolution of 1882. He led a series of enactments in which larger powers of the local self-government were given to the rural and urban bodies and the elected people received wider rights.

Local Self Governments since Independence

The conceptualization of the system of local self-government in India took place through the formation and effort of four important committees from the year 1957 to 1986. The Community Development Programme (1952) and National Extension Service (1953) became a basis for 'The Great Charter on Panchayat Raj' in 1957.

Salient Features of the 73rd and 74th Constitution Amendment Acts (1992)

- Panchayats and Municipalities will be 'institutions of self-government'.
- Basic Units of Democratic System - Grama Sabhas (Villages) and Ward Committees (Municipalities) comprising all the adult members registered as voters.
- Three-tier system of panchayats at village, intermediate block/taluk/mandal and district levels. Two-tier for smaller states with population below 2 million.
- Seats at all levels filled by direct elections.
- Seats reserved for Scheduled Castes (SCs) and chairpersons of the Panchayats at all levels also shall be reserved for SCs and STs in proportion to their population.
- One-third of the total number of seats reserved for women. One-third of the seats reserved for SCs and STs also reserved for women. One-third offices of chairpersons at all levels reserved for women.
- Uniform five year term and elections to constitute new bodies to be completed before the expiry of the term. In the event of dissolution, elections must be held compulsorily within six months.

Salient Features of the Tamil Nadu Panchayati Raj Act, 1994

The New Panchayat Raj System came into being in Tamil Nadu after the enactment of a new law for local body institutions in the year 1994. The salient features of the new Act are as follows:

- A three-tier system
- Gram Sabha
- Establishment of Election Commission
- Constitution of Finance Commission
- Reservation of seats for SC/ST's proportionate to their population One third reservation of seats for women and
- Constitution of District Planning Committees.

Village Panchayat

Local governments which are function in villages are called Village Panchayats. The President and ward members are directly elected by the people. (Those who have attained the age above 18) and their term of office is five years. District Collector act as the Inspector of Village Panchayat. Village Panchayats are constituted in each and every village wherever the population is above 500.

Functions of the Village Panchayat

- Supply of drinking water
- Maintenance of street lights
- Maintenance of roads
- Maintenance of village libraries
- Maintenance of small bridges
- Granting permission to the housing plots
- Maintenance of drainage
- Construction of group houses
- Cleaning of streets
- Maintenance of burial grounds
- Maintenance of common lavatory facilities

Voluntary Functions.

According to the Tamil Nadu Local Government Act passed in 1994, the following functions to be performed as voluntary functions by the local governments.

- Maintenance of street lights in the villages
- Maintenance of markets and fairs
- Implantation of trees
- Maintenance of play grounds
- Maintenance of parking vehicles, slaughter houses and cattle sheds
- Control over places of exhibition

Revenue

Village Panchayat was the only local government which was empowered to levy taxes in the three-tier system of Village Panchayat.

Taxes

- Property Tax
- Professional Tax
- House Tax
- Taxes for connection of drinking water
- Land Tax
- Taxes levied on shop

Meeting of Gram Sabha

In each and every village, the people living within its jurisdiction will be the members of Panchayat. The President of the Panchayat will preside over its meetings. In the meeting of the Grama Sabha, the income and expenditure and the beneficiary of the schemes in the village are discussed.

Meetings of the Grama Sabha are conducted four times a year

January 26 - Republic Day

May 1 - Labourer Day

August 15 - Independent Day

October 2 - Gandhi Jayanthi

Panchayat Union

Panchayat Union is formed by grouping of villages. Members of the Panchayat Union are directly elected by the people. The Chairman of the Panchayat Union is chosen from among the members.

Functions of the Panchayat Union

- Supply of drinking water
- Maintenance of Village Health Centres
- Maintenance of roads
- Establishment of Maternity Homes
- Establishment of Public fairs
- Establishment of Veterinary hospitals
- Maintenance of Social forests
- Repairing of Primary School buildings

District Panchayat

A District Panchayat is constituted in each district. One district Panchayat is constituted for every 50,000 people and the ward members are directly elected by the people. The Chairman is elected from one among its members and their term is 5 years.

Functions of District Panchayat

Advising the government about the developmental schemes of the Village Panchayat and Panchayat Union.

Supervising the functions of District Planning Commission.

Urban Local Government

- Town Panchayat
- Municipality
- Corporation

Gandhi's Concept of Gram Swaraj

Gandhi really wanted 'Swaraj', the self rule by the people of India who represent the rural mass. He observed 'India's soul lives in the village'. He dreamt of village republics in terms of Panchayat in free India. Mahatma Gandhi advocated Panchayat Raj, a decentralized form of government, where each village is responsible for its own affairs, as the foundation of India's political system. In simpler words, Gandhi's ideal village should be basically self-reliant, making provision for all necessities of life-food clothing, clean water, sanitation, housing, education, and other requirements, including government and self-defense.

Town Panchayat

The area where more than 10,000 people live is called a Town Panchayat. Members and President of the town Panchayat are directly elected by the people. There is an Executive Officer to look after the administration of the Town Panchayat and their term of office is 5 years.

Municipality

The area where more than 1,00,000 people live is called a Municipality. The Members and the Chairman of the Municipalities are directly elected by the people and their term of office is five years. A Municipal Commissioner is appointed by the government to administer the Municipality.

Corporation

Municipal corporations are established in big cities where the city has many lakhs of population. The Municipal Commissioner is the Administrative Officer. The Mayor is the Chairman of the corporation. The term of office of the Mayor and other members is five years. In Tamil Nadu, there are 12 Corporations. They are in Chennai, Kovai, Madurai, Trichy, Tirunelveli, Salem, Erode, Vellore, Tuticorin, Tirupur, Tanjore, Dindigul. The Municipal Commissioner will be a person from the Indian Administrative Service (IAS). All the decisions of the Corporation Council will be implemented by him. He will be assisted by the office of the corporation.

Important functions of the Mayor

- He acts as a bridge between the members of the corporation and the government
- He presides over the meetings of the Corporation Council
- He receives the dignitaries from foreign countries

Types of other Urban Panchayats

- Notified Area Committee
- Town Area Committee
- Cantonment Board
- Township
- Port Trust
- Special Purpose Agency

Elections to the local government in Tamil Nadu

The State Election Commission conducts the elections to the local government like general elections. The electoral roll is prepared ward wise. Seats are reserved for the SC & ST and also for the women in proportion to the population by rotation basis.

Problems and Challenges facing the Local Self Governments

Local self governments are the crucial basis for our democracy. The Constitutional status of local self governments adds more significance to their functioning. There are, however, a few critical concerns in the working of local self governments in India. Major problems and challenges may be mentioned as below:

- Lack of clear demarcation of powers and functions of local bodies
- Allocation of funds and needs assessment are not matched
- Role of caste, class and religion in decision-making at the local self governments
- Poor accountability of elected members and officials at the grassroot levels of democracy

Piped water supply scheme in Erode Municipality:-

Periyar E.V.Ramasamy became the Chairman of Erode Municipality in 1917. During his tenure in Erode Municipality, Periyar worked effectively for Providing piped drinking water supply and health facilities to the people. Piped water supply scheme was implemented in 1919 by Periyar. This scheme was said to be first of kind in the history of Indian Municipal administration.

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Economics

Unit - 4 Agriculture in Tamil Nadu

Introduction

Most of the people of Tamil Nadu depended on agriculture at the time of independence and even after 40 years of independence. That situation is being changed in the recent years. It has been noticed that the number of farmers in Tamilnadu has got reduced during the last 10 years according to the 2011 census data. Similarly the number of agricultural workers also reduced during the same period. According to the 2001 census, 49.3% out of the total population of workers were involved in agriculture. The percentage has reduced to 42.1 in the next 10 years. In 2011 there were three crore 29 lakh workers in Tamil Nadu of which 96 lakh were agricultural workers.

In 2011, nearly 55% of the women were involved in agriculture whereas nearly one third (35.3%) of the male population was involved in agriculture during the same year. A major portion of the workers involved in agricultural activities are landless labourers. All the land holders do not have the same amount of land. Many have very little land and very few people hold large areas of land. During 2015-16, there were 79,38,000 cultivators in Tamil Nadu. But five years earlier there were 81,18,000 cultivators. There was a reduction of 1,80,000 cultivators in these five years. Similarly, the area under cultivation also reduced from 64.88 lakh hectares to 59.71 lakh hectares during the same period. That is, the state of Tamil Nadu had lost nearly 1,03,400 hectares on an average during these five years.

Most of the cultivators in Tamil Nadu are micro farmers who cultivate in an area less than 1 hectare. Micro farmers account to around 78% of the total cultivators, while the area cultivated by these micro farmers is just 36%. Small farmers cultivating 1-2 hectares of land cover 14%, while the land cultivated by them is 26%. Cultivators of schedule caste farmers are only one percent in Tamilnadu. 96% of this one percent are small, micro farmers. The total land area under agriculture is shrinking fast not only in Tamil Nadu, but also throughout India. The number of marginal Sectors of people involved in agricultural activities. Types of land usage farmers has increased in India. In contrast, the number of marginal farmers is decreasing in Tamil Nadu. This shows that the farmers are doing other occupations.

Types of land usage

The total geographical area of Tamil Nadu is one crore 30 lakhs and 33 thousand hectares. Out of this only one third of land is used for agriculture (45,44,000 hectare). 17% of the land is used for non agricultural use. Nearly the same size (2125 thousand hectares) of land are forests. About 4% of the total land is unusable. One tenth of the land is barren. Other fallow lands are 13 percent. So nearly one-fourth of the land is barren and we have to be concerned of the increasing size of the barren land. Grazing land and cash crops occupy slightly more than 5% of the total land area.

The size of the total cropping land in Tamil Nadu is 4,544 thousand hectare and this keeps on changing every year. Sufficient rains at the proper period will increase this extent of land. Failure or shortage in rainfall leads to the reduction of land usage for cultivation. A small part of this area gives a chance to crop more than once in a year. The extent of this area also changes every year. This land extent was 9 lakh hectares in next year but was reduced to 6 lakh hectare, due to lack of rainfall. This area will be more or less stable only when there is a stable and reliable water source.

If there is good water for a land, more than one crop can be cultivated in a year. In some land, two or even three crops can be cultivated. If one hectare land is cultivated once in a year, then the net land and the cultivated land is also one hectare only. If the land is cultivated twice, then the net land area is only one hectare, but the cultivated land area accounts to two hectare. If calculated in the same way for Tamil Nadu for the year 2012 -13, it is 45 lakh 44 thousand hectare net land area whereas the cultivated land comes to around 51 lakh 40 thousand hectare. So, it is clear that 5,96,000 hectares is cultivated more than once. While reliable water supply increases, the possibility of cultivating the land more than once increases. Thus when the total area of cultivable land area increases, it results in the increase of agricultural production. In 2012-13, out of the total cultivated land, nearly 72 percent is used for food crops and the remaining for non-food crops.

Water resources for agriculture

There are no perennial rivers in Tamil Nadu. Tamil Nadu receives the required water from the Northeast and Southwest monsoons. When the South West monsoon rains are high in the catchment areas of the Cauvery River in Karnataka dams get filled and in turn the Cauvery River in Tamil Nadu gets water.

Northeast monsoon (Oct-Dec) is a major source of water for Tamil Nadu. The Northeast monsoon rains are stored in reservoirs, lakes, pond and wells for cultivation. Conventional water bodies like lakes, ponds and canals provide water for agriculture in Tamil Nadu. 2,239 canals run through Tamil Nadu covering a length of 9,750 km. There are 7,985 small lakes, 33,142 large lakes, 15 lakh open wells and there are 3,54,000 bore wells in the state where agriculture is carried out with the help of these water resources.

The area of land that is irrigated using water from lakes is very low. Nearly 3.68 lakh hectares of land obtain water from lakes. The canals provide water to 6.68 lakh hectares. Bore wells irrigate 4.93 lakh hectares and open wells provide water to 11.91 lakh hectares of land. Agriculture in Tamil Nadu is dependent mostly on groundwater. Use of ground water for agriculture creates many hardships too. There would be no sufferings if the amount of water taken from the underground and the amount of water that goes into the underground during the rainy season are equal. On the contrary, as the amount of water taken increases, the ground water goes down resulting in complete dryness or change into unusable water.

The Union Ground Water Board is constantly monitoring the level and nature of ground water. This continuous monitoring has categorized the Panchayat Union (blocks) in terms of the amount of groundwater used. 139 blocks in Tamil Nadu are identified as excessive users of groundwater and 100 blocks as nearing the stage of excessive usage of groundwater. 11 blocks have been identified with reduced water quality. Only 136 blocks have enough quantity and quality water for usage. From this, we come to know that:

Tamil Nadu agriculture is dependent on groundwater.

It is very urgent and necessary to regulate the usage of underground water. This is very important for sustainable farming.

Irrigation and crop types

Crops in Tamil Nadu

All cultivated crops can be classified as food crops and non-food crops. 57 percentage of the total land under food grain cultivation is irrigated. In 2014-15, 59 percentage of food crops and 50 percentage of non food crops were irrigated in Tamil Nadu. The total area of land cultivated in Tamil Nadu was

59 lakh and 94 thousand hectares in 2014-2015. Out of this non-food crops were 76%.

Paddy cultivation is carried out at a large scale of 30 percent cultivated land area and other food crops in 12 percent area. Millets are cultivated in a very low percentage of area. Sorghum(Cholam) cultivation in 7 per cent land area, cumbu in one percent and ragi in 1.7 per cent. Other millets occupy 6 per cent in the year 2014 - 2015. The area cultivatable land changes every year as a result of many factors such as rainfall, availability of water, weather and market prices.

Micro irrigation

Micro irrigation technology is a very good remedial measure to tackle shortage in irrigational water. This irrigation technology helps to have a higher yield when compared to the traditional irrigation methods. As only required amount of water is supplied at regular intervals, it increases the ability of water usage and productivity of the crop resulting in reduction of labour expenses and weed growth in the field. As the fertilizer is distributed through water, it increases the usage of fertilizer and the yield. As Tamil Nadu gets insufficient rainfall, the government has taken many measures to implement micro irrigation for proper distribution of water to crops that require more water.

Virtual water

The term 'virtual water' was introduced by Tony Allen in 1990. The water consumed in the production process of an agricultural or industrial product is called 'virtual water'. It is the hidden flow of water when food or other commodities are traded from one place to another. For instance, it takes 1340 cubic metres of water (based on the world average) to produce one metric ton of wheat. That is, if one metric ton of wheat is exported to another country, it means that 1340 cubic metres of water used to cultivate this amount of wheat is also being exported. India is the largest global freshwater user. India has been the fifth largest exporter of virtual water in the world.

Decadal growth in agricultural production

The total quantity of food grains produced in Tamil Nadu in the year 2014 - 2015 was one crore 27 lakh 35 thousand tonnes. Paddy alone accounted to 80 lakhs tonnes. The contribution of paddy to the total amount of food production is 62%. Maize production was 20%, corn 7%, ragi 3% and another 3% occupied by black gram, while other food crops contributed a very meager

amount to the total food production in Tamil Nadu. The amount of production varies depending on the amount of land being cultivated.

The yield of productive crops

The amount of production depends not only on the area but also on the productivity of crops. Production capacity of paddy in Tamil Nadu was 4,429 kg per hectare in 2014-2015. This capacity was 3,039 kilograms in 2010-2011 revealing the increase in productivity. Next to paddy, maize stands second in the production (8,824 kg/hectare). 2,093 kg/hectare corn, 3,077 kgs of rye (cumbu) and 3348 kgs of ragi were produced during the same period.

Black gram, one of the largest cultivated pulses, produced 645 kg per hectare. Production of sugarcane and ground nut (Manila) were 107 tons and 2,753 kg per hectare respectively. The productivity of crops continues to increase. For example the productivity of paddy in 1965 - 66 was 1,409 kg. It increased to 2,029 kg in 1975-76 and 2,372 kg in 1985-86. It increased to 2,712 kg after a decade. The production was 4,429 kg in the year 2014-15. In the past fifty years, the productivity of paddy has increased more than three times.

The food grain production capacity, has increased about 3.5 times between 1965-66 and 2014-15. Similarly, the total food grain production has risen by 2.5 times during this period. In 1965-66, the total food grain production was slightly more than 50 lakh tonnes and in 2014-15, the production increased and was slightly below one crore 28 lakh tonnes. We find that both the productivity and food production in Tamil Nadu continue to increase. However, the area under food grain cultivation has reduced in the same period. Though there was a reduction in the area of production, the total amount of production has been maintained and there is an increase of productivity.

NOTE

River Cauvery is the 3rd largest river in South India. Its length is 765 km. The dams constructed across Cauvery in Tamil Nadu are Mettur Dam, Kallanai