

Unit -3: **EFFECTIVE ENGLISH**
THEORY: PROSE COMBINED WITH LSRW SKILLS
FOCUS ON: Linkers & Connectives

THE PILGRIM'S PROGRESS

By John Bunyan

As I walked through the wilderness of this world, I lighted on a certain place where was a Den, and I laid me down in that place to sleep: and, as I slept, I dreamed a dream. I dreamed, and behold, I saw a man clothed with rags, standing in a certain place, with his face from his own house, a book in his hand, and a great burden upon his back. I looked, and saw him open the book, and read therein; and, as he read, he wept, and trembled; and, not being able longer to contain, he brake out with a lamentable cry, saying, "What shall I do?"

In this plight, therefore, he went home and refrained himself as long as he could, that his wife and children should not perceive his distress; but he could not be silent long, because that his trouble increased. Wherefore at length he brake his mind to his wife and children; and thus he began to talk to them: O my dear wife, said he, and you the children of my bowels, I, your dear friend, am in myself undone by reason of a burden that lieth hard upon me; moreover, I am for certain informed that this our city will be burned with fire from heaven; in which fearful overthrow, both myself, with thee my wife, and you my sweet babes, shall miserably come to ruin, except (the which yet I see not) some way of escape can be found, whereby we may be delivered. At this his relations were sore amazed; not for that they believed that what he had said to them was true, but because they thought that some frenzy distemper had got into his head; therefore, it drawing towards night, and they hoping that sleep might settle his brains, with all haste they got him to bed. But the night was as troublesome to him as the day; wherefore, instead of sleeping, he spent it in sighs and tears. So, when the morning was come, they would know how he did. He told them, Worse and worse: he also set to talking to them again; but they began to be hardened. They also thought to drive away his distemper by harsh and surly carriages to him; sometimes they would deride, sometimes they would chide, and sometimes they would quite neglect him. Wherefore he began to retire himself to his chamber, to pray for and pity them, and also to condole his own misery; he would also walk solitarily in the fields, sometimes reading, and sometimes praying: and thus for some days he spent his time.

Now, I saw, upon a time, when he was walking in the fields, that he was, as he was wont, reading in his book, and greatly distressed in his mind; and, as he read, he burst out, as he had done before, crying, "What shall I do to be saved?"

I saw also that he looked this way and that way, as if he would run; yet he stood still, because, as I perceived, he could not tell which way to go. I looked then, and saw a man named Evangelist coming to him and asked, Wherefore dost thou cry?

He answered, Sir, I perceive by the book in my hand, that I am condemned to die, and after that to come to judgement and I find that I am not willing to do the first, nor able to do the second.

CHRISTIAN no sooner leaves the World but meets EVANGELIST, who lovingly him greets With tidings of another: and doth show Him how to mount to that from this below.

Then said Evangelist, Why not willing to die, since this life is attended with so many evils? The man answered, Because I fear that this burden is upon my back will sink me lower than the grave, and I shall fall into Tophet. And, Sir, if I be not fit to go to prison, I am not fit, I am sure, to go to judgement, and from thence to execution; and the thoughts of these things make me cry.

Then said Evangelist, If this be thy condition, why standest thou still? He answered, Because I know not whither to go. Then he gave him a parchment roll, and there was written within, Flee from the wrath to come.

The man therefore read it, and looking upon Evangelist very carefully, said, Whither must I fly? Then said Evangelist, pointing with his finger over a very wide field, Do you see yonder wicket-gate? The man said, No. Then said the other, Do you see yonder shining light? He said, I think I do. Then said Evangelist, Keep that light in your eye, and go up directly thereto: so shalt thou see the gate; at which, when thou knockest, it shall be told thee what thou shalt do.

So I saw in my dream that the man began to run.

Now, he had not run far from his own door, but his wife and children, perceiving it, began to cry after him to return; but the man put his fingers in his ears, and ran on, crying, Life! life! eternal life!

Linkers and Connectives

| Linkers (also called transition words and discourse markers) | Connectives (also called Connectors and conjunctions) |
|---|---|
| Linkers are those which connect ideas within a text or discourse. They are used to relate and maintain logical connections between sentences in paragraphs leading to coherence. | Connectives are those which connect words, sentences or clauses. They are used to combine any two words or clauses within a sentence. |
| <p>Example:</p> <p><u>At first</u>, milk is boiled in a saucepan. <u>Secondly</u>, a teaspoon of coffee powder is added. <u>Then</u>, we add two spoons of sugar. <u>Finally</u>, it is stirred and served in a cup. <u>Similarly</u> you can prepare tea.</p> | <p>Example:</p> <p>1. Ram <u>and</u> Ganesh went to a movie yesterday. 2. <u>Since</u> he was ill, he did not go to office.</p> |
| <p>Frequently Used Linkers:</p> <p>First of all, firstly, secondly, then, afterwards, right now, after this, next, finally, consequently, therefore, thus, however, at present, indeed, now, nowadays, years ago, once, once upon a time, for instance, for example, hence, meanwhile, in the meantime, similarly, likewise, in the same way, furthermore, moreover, besides, in addition, according to,</p> | <p>Frequently Used Connectives:</p> <p>and, but, yet, still, so, because, as, since, that, or, if, unless, though, although, even though, while, whereas, either..or, neither..nor, not only....but also, so that...</p> |

| | |
|---|--|
| accordingly, on the other hand, to summarize, to sum up... | |
|---|--|

LISTENING: Short Story on Moral Value (Identifying Linkers).
(Listening practice is to be given.)

Listen to the following short story and identify the linkers:

Short Story -1

The Clever Bull

Once upon a time, a farmer owned a bull that helped him in his field. As the bull grew old, the farmer abandoned it in the jungle. The bull was old but clever. He wanted a place to live with enough food. Soon he found an empty cave with a pond nearby. There were pastures of green land with plants, shrubs and trees all around. The bull settled down there. One day he saw a lion coming towards the cave. The bull did not panic. He quickly thought of a plan. Looking into the cave, he called out: Darling! today our kids will have a great feast. A lion is coming here. Keep quiet, don't frighten him away. As soon as he is near enough, I will pick him by my horns and pull him inside. Oh God! he seems to be a deadly creature. I'd better flee to save my life. Stop, Oh King! What happened? The lion explained the problem to the jackal. Ha..ha.. ha...Why do you laugh? Ha... ha... ha... he just fooled you. Ha... ha... ha... Huh, what do you mean? Your Majesty, the creature you're frightened of is just a bull. He is healthy food for you. Come on, I'll show you. Huh, may be he is right but that creature. How to believe him? Don't fear king. Tie your tail to mine. I will lead, If the bull attacks, I will be the one to suffer. This gave the lion some courage. He tied his tail to the jackal's tail and walked towards the cave. When the bull saw the jackal and the lion coming together, He realized that the jackal had revealed his secret. Still he kept cool and called out to the jackal: Hey Jackal! I had asked you to bring me two lions, you have brought only one. Will half of my family go without food? Oh! No. I can't stay here anymore. Run... run...The frightened lion ran back and the poor jackal got dragged away behind him because of their tied tails. Thus the bull saved his life using his brain. Moral: Think clever, Win Sure. (video link:

https://youtube.com/watch?v=ggrNoS_xGoo&feature=shared)

Short Story-2

Fear of Tiger Lurking Behind Worldly Joy (by Ramakrishna Paramahansa)

Children, have you heard about the wish yielding tree of the celestial world? It is called Kalpataru. This is a story about the celestial tree. One day a man after much travel reaches a village. He is very tired having had no food and water for some time. He sees a big tree and he sits under the tree. The man does not know that this tree is the kalpataru the celestial wish yielding tree. Thank god! At least this tree is here to give me some shade. This place seems to be very nice. How I wish I get a soft bed to sleep on! What a surprise! Before I finish my thought the soft bed and pillow are here. See with the dirty dress I am wearing. I do not want to climb into the bed! I need a nice dress. How I wish If a beautiful lady comes and sits near me! What a miracle! Whatever comes true! Have I become a holy man? Is anything special with this place?

Now what I need is some good food for me as well as for the lady. I am going to stretch myself in the soft bed. You can also rest if you so desire and enjoy my hospitality. (He thinks) If a tiger comes and attacks both of us?! (A tiger comes and attacks)

The moral of the story is the success of a happy man lies in keeping away from negative thoughts. (Video link: 8.44 to 12.55, <https://youtu.be/EPzc5EfdwuY?feature=shared>)

SPEAKING: Just a Minute Talk (JAM) (Selected Topics can be given).
Speaking practice is to be given

Three Types of Topics:

1. Opinion based topics
2. Situation based topics
3. Experience based topics

Topics for Just a Minute Talk:

1. My College Life
2. The Movie I watched recently
3. My Favorite TV Programme
4. My Wishes / My Dreams in Life
5. Importance of Money in Life
6. All About My Best Friend
7. How will I spend if I win One Crore Money in lottery?
8. The Most Exciting Event in My Life
9. If I were the Chief Minister
10. My Inspiration in My Life

Tips for Just a Minute Talk:

- ☐ Select the topic you like the most
- ☐ Begin your speech greeting the audience and introducing the topic: Hi friends, I'm Arun, I would like to talk about my college life now...
- ☐ Recall your experience, thoughts, ideas related to the topic and divide them to cover one minute.
- ☐ Quickly arrange the points you remember into Introduction(15 seconds), body (30 seconds) and conclusion (15 seconds)
- ☐ Rely on your personal experience and knowledge rather than your imagination or assumption
- ☐ Use thought fillers and linkers to develop your ideas with logical connections
- ☐ Use rhetorical question to make your speech effective and to make audience realize the truth in your statement (Do you think rich people are happy in this world? Can you restrict using mobiles in college in future?)
- ☐ Don't be nervous when you see the large number of persons before you. Be confident of your potentiality and strength and just say to yourself only this: "I can do well"
- ☐ Be aware of the passing of time and so avoid taking long pauses between one idea and another.
- ☐ Remember your talk may sometimes stop abruptly or may not be as you planned or expected. Because practice alone makes your speech lively, easy, informative and effective.

Samples:**Just a Minute Speech:****Topic1: My College Life**

Hi friends, I am Kavya from I year Civil Engineering. I would like to talk about my college life that I have experienced so far. What kind of college life is this! So amazing! So exciting! Full of fun and friends. First thing I would share with you is, my friendship. I never expected to have such nice friends whom I have now. My school friends and college friends are entirely different. Anjali, Janani, Keerthana, Gayathri ...Vow! how many close friends I have. I am the richest person in the world. I like to spend time with them the whole day, talking this and that . I like fighting with them for silly reasons. It is a fun. What my friend did yesterday, what happened to her, where she went for shopping, what lunch she has brought for me today, everything matters to me more. If I don't understand what the teacher says, or If I take leave, I never worry. My friend becomes my teacher and explains me everything. Day by day, more and more friends are adding in my list. I am so happy about it now. The next important thing in my college life is, the surroundings here. To me, it is a new happy world that I enter in the morning and leave in the evening. The sports hours are fun hours for me, offering new experience I ever had. The library hours always make me feel, I can never read all these books, the canteen where I chat and enjoy the snacks, chocolates and cakes, the labs where I am always instructed to handle the items carefully, all such places have become my flesh and bones. Finally, the teachers and my new learning here make the difference. I really wonder, how my teachers are so knowledgeable, simple and friendly but at the same time make no compromise with the discipline I need. I am sure, they will bring out the best that is within me. Thank God for giving me such a gifted college life. Thank you all for patiently listening to me. Thank you.

Topic 2: The Importance of Money in Life

Good morning to one and all present here! I am Karthika from Computer Engineering. My topic is the Importance of Money in Life.

First of all, let me ask you a question. Why do you study this diploma? It is just to get a good placement. Why do you want to be placed in an MNC? Just for the promising salary package. Because we all know, money makes many. We buy all luxuries and comforts only with money. Everyone wants to get settled quickly in life. Who brings that settlement? Only money. You need money for everything. If you have money, International schools are waiting for children. If you don't have money, you have to push them into Govt schools. Thus the education you have, the dress you wear, the food you take, the house you live, the friends you have, the life partner you have, everything is decided by how much money you have. In fact, Money rewrites your destiny. The world expands and looks wide for the rich but it shrinks to a small circle for the poor, closing all doors of opportunities. Money is man-made but it makes man. It gives him power. It brings him social respect. It brings all pleasures of life, being a gateway to heaven. But, my dear friends, I have a warning to you. Too much of anything is

poison. It is true with money too. The more you have money, the more you will have problems. Soon your soul will long for peace. You will feel an emperor in the outer world but a beggar inside wanting something. Can you eat money when you are in a lonely Island? Can you buy motherly love with money? Not at all. So, to conclude my speech, I say, money is important but it does not mean everything in life. Thank you all.

READING: General Paragraph on Moral Values (Selected passages given)

Students will be asked to read the given passage on Moral Values with proper Stress and Intonation. (Reading practice is to be given.)

What is Stress?

Every word is made of one or more syllables. For example, the word 'book' has one syllable whereas the word 'con-tent' has two syllables and the word 're-mem-ber' has three syllables. The extra force with which you pronounce a syllable is called stress. If the word content is used as a noun, then the stress falls on the first syllable. If the same word is used as an adjective, the stress falls on the second syllable. See the difference:

1. Content (N) - /'kɒntent/
2. Content(Adj) - /kən'tent/

You can also see that the word remember /rɪ'membə(r)/ always receives stress on the second syllable. You can learn word stress by referring to any standard dictionary.

What is Sentence Stress?

When we utter a sentence, we are not supposed to stress all the words in the same way. Depending upon the mood of the speaker or what the speaker intends to say, some words are stressed and some are not. The pattern of stressed and unstressed words across a sentence is known as sentence stress.

The three rules for sentence stress are:

1. content words are stressed
2. structure words are unstressed
3. the time between stressed words is always the same

| Content Words (stressed) | Structure Words (unstressed) |
|---|---|
| 1. Nouns- sweet, water, lion, computer | 1. Pronouns – I, we, you, he, she, it, they |
| 2. Main verbs – speak, write, close, bring | 2. Auxiliary verbs- am, is, are, was, were |
| 3. Adjectives- beautiful, clever, wise, nice | 3. Prepositions- at, for, to, from, on |
| 4. Adverbs- slowly, clearly, here, there | 4. Articles- a, an, the |
| 5. WH Words – What, Why, Where, How | 5. Conjunctions- and, but, so, or |
| 6. Negative Auxiliaries- don't, can't, hasn't | |

Examples:

1. I'm **SORry**. Your **BOY** is **NAUGHty**.
2. **WHERE** are you **COMing** from?
3. I **SAY**, she is **inTElligent**.
4. Will you **BRING SOME** Water because I'm **THIRsty**?

What is Intonation?

The rise and fall of your voice during your speech is called intonation. It helps you convey the meaning you intend. See the difference:

That's your mother? (The speaker had imagined the mother to appear differently)

That's **your** mother? (The speaker thought her to be somebody's mother.)

That's your **mother?** (The speaker thought her to be some other relation.)

The degree to which a sound is high or low is called pitch. The pitch of your voice means the degree to which your voice is high or low. If the pitch of your voice is moving from low to high, it is called rising intonation and if it is moving from high to low, it is known as falling intonation. If the pitch first rises and then falls, it is rise-fall intonation. If the pitch first falls and then rises, it is fall-rise intonation.

| Rising Intonation ↗ | Falling Intonation ↘ | Rise-fall intonation ↗↘ | Fall-rise intonation ↘↗ |
|---|---|---|---|
| Yes/No type questions: Is it true? Are you mad? | WH questions: What is your name? Why did you come here? | While listing items, last item falls, others rise: I bought a pen, pencil and eraser. | To express doubts: You mean this week ? |
| Greetings and wishes: Hello Good Morning Happy Pongal To express happiness, anger, surprise: Really! What a fantastic idea! What nonsense are you talking? | Definite statements: Smoking is injurious to health. To express commands: Close the door. Come here. To express sadness, boredom, disgust: Oh my God! he is dead! The work is tedious. Why are you behaving like this? | While stressing something: This is MY bag. I want a COSTLY ring. | Tag Questions: You can do this work, can't you? Bring me some water, will you? |

1. Read the following passage with proper stress and intonation:

Truth (by M. K. Gandhi)

The word Satya (Truth) is derived from Sat, which means 'being'. Nothing is or exists in reality except Truth. That is why Sat or Truth is perhaps the most important name of God. In fact

it is more correct to say that Truth is God, than to say that God is Truth. But as we cannot do without a ruler or a general, such names of God as 'King of Kings' or 'The Almighty' are and will remain generally current. On deeper thinking, however, it will be realized that Sat or Satya is the only correct and fully significant name for God.

And where there is Truth, there also is knowledge which is true. Where there is no Truth, there can be no true knowledge. That is why the word Chit or knowledge is associated with the name of God. And where there is true knowledge, there is always bliss (Ananda). There sorrow has no place. And even as Truth is eternal, so is the bliss derived from it. Hence we know God as Sat-chit-ananda, One who combines in Himself Truth, Knowledge and Bliss.

Devotion to this Truth is the sole justification for our existence. All our activities should be centered in Truth. Truth should be the very breath of our life. When once this stage in the pilgrim's progress is reached, all other rules of correct living will come without effort, and obedience to them will be instinctive. But without Truth it is impossible to observe any principles or rules in life. Generally speaking, observation of the law of Truth is understood merely to mean that we must speak the truth. But we in the Ashram should understand the word Satya or Truth in a much wider sense. There should be Truth in thought, Truth in speech, and Truth in action. To the man who has realized this Truth in its fullness, nothing else remains to be known, because all knowledge is necessarily included in it.

2. Read the following passage with proper stress and intonation:

Swami Vivekananda: On the Wisdom and the Goal of Life

Each soul is potentially divine. The goal is to manifest this divinity by controlling nature, external and internal. Do this either by work, or worship, or psychic control, or philosophy – by one, or more, or all of these – and be free. All love is expansion, all selfishness is contraction. Love is therefore the only law of life. He who loves lives, he who is selfish is dying. Therefore love for love's sake, because it is the only law of life, just as you breathe to live.

All power is within you; you can do anything and everything. Believe in that, do not believe that you are weak; do not believe that you are half-crazy lunatics, as most of us do nowadays. You can do anything and everything, without even the guidance of any one. Take up one idea. Make that one idea your life; dream of it; think of it; live on that idea. Let the brain, the body, muscles, nerves, every part of your body be full of that idea, and just leave every other idea alone. This is the way to success, and this is the way great spiritual giants are produced. Be not afraid of anything. You will do marvelous work. It is fear that is the great cause of misery in the world. It is fear that is the greatest of all superstitions. Therefore, "arise, awake and stop not until the goal is reached."

You have to grow from the inside out. None can teach you, none can make you spiritual. In a day, when you come across any problems, you can be sure that you are travelling in a wrong path. We reap what we sow. We are the makers of our own fate. The wind is blowing; those vessels whose sails are unfurled catch it, and go forward on their way, but those which have their sails furled do not catch the wind. Is

that the fault of the wind? We make our own destiny. The greatest truths are the simplest things in the world, simple as your own existence. Do not believe a thing because you have read about it in a book. Do not believe a thing because another man has said it was true. Do not believe in words because they are hallowed by tradition. Find out the truth for yourself. Reason it out. That is realization. The mind is in its own nature when it is calm. The moment you can calm it, *that* moment you will know the truth.

WRITING: Note Taking/Summarization (Based on the General Paragraph given).
(Written practice is to be given.)

Note-taking and Summarization:

When you read a book in the library, which is easy- copying down everything or noting down only the important points for your assignment or test? If a newspaper reported visits an accident spot, how does he collect information for his next day news? Writing down important points or main ideas from the passages you read is known as 'note-taking.' It saves your time and enhances your focus on main area, helps to remember the important ideas.

Reading may be for specific details or to understand something as a whole. Note-taking is meant for the second. Organizing the collected points into a short paragraph actually sums up what you were reading for a long time. This is known as summarization. **Converting the notes into an entitled paragraph after adding, modifying, substituting or deleting something is called summarization of the passage.** When you prepare a report, project, elocution, presentation or group discussion, note-making and summarization would be of immense help to you. **Don't forget to add a title and the commonly accepted tradition is making a paragraph which is one third of the given passage.**

1. Read the following passage carefully and summarize it after noting down the important points:

While a number of definitions of artificial intelligence (AI) have surfaced over the last few decades, John McCarthy offers the following definition in 2004 : " It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable." However, decades before this definition, the birth of the artificial intelligence conversation was denoted by Alan Turing's seminal work, "Computing Machinery and Intelligence" which was published in 1950. In this paper, Turing, often referred to as the "father of computer science", asks the following question, "Can machines think?" From there, he offers a test, now famously known as the "Turing Test", where a human interrogator would try to distinguish between a computer and human text response. While this test has undergone much scrutiny since its publish, it remains an important part of the history of AI as well as an ongoing concept within philosophy as it utilizes ideas around linguistics.

Stuart Russell and Peter Norvig then proceeded to publish, Artificial Intelligence: A Modern Approach , becoming one of the leading textbooks in the study of AI. In it, they delve into four potential goals or definitions of AI, which differentiates computer systems on the basis of rationality and thinking vs. acting. Human approach can be divided into two: Systems that think like humans and Systems that act like humans but Ideal approach can be Systems that think rationally and Systems that act rationally. Alan Turing's definition would have fallen under the category of "systems that act like humans." Over the years, artificial intelligence has gone

through many cycles of hype, but even to skeptics, the release of OpenAI's ChatGPT seems to mark a turning point. The applications for this technology are growing every day, and we're just starting to explore the possibilities. But as the hype around the use of AI in business takes off, conversations around ethics become critically important.

Weak AI—also called Narrow AI or Artificial Narrow Intelligence (ANI)—is AI trained and focused to perform specific tasks. It enables some very robust applications, such as Apple's Siri, Amazon's Alexa, IBM Watson, and autonomous vehicles. Strong AI is made up of Artificial General Intelligence (AGI) and Artificial Super Intelligence (ASI). Artificial general intelligence (AGI), or general AI, is a theoretical form of AI where a machine would have an intelligence equaled to humans; it would have a self-aware consciousness that has the ability to solve problems, learn, and plan for the future. Artificial Super Intelligence (ASI)—also known as superintelligence—would surpass the intelligence and ability of the human brain. While strong AI is still entirely theoretical with no practical examples in use today, that doesn't mean AI researchers aren't also exploring its development. In the meantime, the best examples of ASI might be from science fiction, such as HAL, the superhuman, rogue computer assistant in *2001: A Space Odyssey*.

Notes:

Definition of AI - John McCarthy in 2004 – “the science and engineering of making intelligent machines, especially intelligent computer programs” - Alan Turing's “Computing Machinery and Intelligence” (1950) – father of computer science - Can machines think? - Turing Test – distinguishing computer and human text response – using ideas around linguistics - Stuart Russell and Peter Norvig- Artificial Intelligence: A Modern Approach – goals of AI – thinking vs acting – Systems that think and act rationally - the release of OpenAI's ChatGPT- a turning point – conversations around AI ethics – Weak AI to perform specific tasks – Ex: Apple's Siri, Amazon's Alexa, IBM Watson, and autonomous vehicles- Strong AI made of AGI and ASI – Intelligence and consciousness equal to or better than humans- no practical examples in use today- ASI e.g. HAL and A Space Odyssey.

Artificial Intelligence

John McCarthy in 2004 defined Artificial Intelligence as “the science of engineering of making intelligent machines.” Alan Turing, father of computer programs, raised a question in his book “Computing Machinery and Intelligence”(1950) – “Can Machines think?”. Then came Turing Test that distinguished computer and human text response using ideas around linguistics. Thereafter, Stuart Russell and Peter Norvig in their book “Artificial Intelligence: A Modern Approach” discussed the goals of AI and differentiated thinking and acting. Systems that think and act rationally were preferred. During this time, the release of Open AI's ChatGPT became a turning point, though there were AI ethical issues. There are two kinds of AI – Weak AI and Strong AI. The former performed specific tasks and Apple's Siri, Amazon's Alexa and IBM Watson are good examples. But the latter has no practical examples in use till today though they aim at creating Intelligence and consciousness equal to or better than humans. However novels like HAL and A Space Odyssey are based on Strong AI.

2. Read the following passage carefully and summarize it after noting down the important points:

Water covers 70% of our planet, and it is easy to think that it will always be plentiful. However, freshwater—the stuff we drink, bathe in, irrigate our farm fields with—is incredibly rare. Only 3% of the world's water is fresh water, and two-thirds of that is tucked away in frozen

glaciers or otherwise unavailable for our use. As a result, some 1.1 billion people worldwide lack access to water, and a total of 2.7 billion find water scarce for at least one month of the year. Inadequate sanitation is also a problem for 2.4 billion people—they are exposed to diseases, such as cholera and typhoid fever, and other water-borne illnesses. Two million people, mostly children, die each year from diarrheal diseases alone.

Many of the water systems that keep ecosystems thriving and feed a growing human population have become stressed. Rivers, lakes and aquifers are drying up or becoming too polluted to use. More than half the world's wetlands have disappeared. Agriculture consumes more water than any other source and wastes much of that through inefficiencies. Climate change is altering patterns of weather and water around the world, causing shortages and droughts in some areas and floods in others. At the current consumption rate, this situation will only get worse.

When water becomes scarce, natural landscapes often lose out. The Aral Sea in central Asia was once the world's fourth largest freshwater lake. But in only three decades, the sea has lost an area the size of Lake Michigan. It is now as salty as an ocean due to the excessive pollution and the diversion of water for irrigation and power generation. As the sea has retracted, it has left polluted land. This ecological catastrophe has created food shortages and resulted in a rise in infant mortality and a decrease in life expectancy for the nearby population. By 2025, two-thirds of the world's population may face water shortages. And ecosystems around the world will suffer even more.
