



St. Xavier's College (Autonomous)
Kolkata

Ignatius



UNIVERSAL
APOSTOLIC
PREFERENCES

(3 & 4)

JOURNEYING WITH YOUTH

Accompany young people in the creation of a hope-filled future

CARING FOR OUR COMMON HOME

Collaborate, with Gospel depth, for the protection and renewal of
God's Creation

500th ANNIVERSARY
OF THE CANNONBALL MOMENT OF
ST. IGNATIUS OF LOYOLA

SPECIAL NEWSLETTER :
IGNATIAN YEAR CELEBRATION 2021-22

VOL-3 (JAN - MAR, 2022)



ST. IGNATIUS AT MANRESA

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Editorial

“The Universal Apostolic Preferences (UAP) provides a spiritual path. They do not seek merely to establish static apostolic ends or actions but, rather, they are a dynamic means for us to continue to be led by the Spirit of renewal that inspired GC36. The Universal Apostolic Preferences are orientations, not priorities. A priority is something that is regarded as more important than others; a preference is an orientation, a signpost, a call. Preferences are not just about doing but about being; they involve our entire life. If the Preferences are truly to be a dynamic path that can guide us..., then beginning the journey patiently and prayerfully is of the utmost importance.” Fr. Arturo Sosa, SJ, Superior General of the Society of Jesus

The Universal Apostolic Preferences are the fruit of an Ignatian election. It indicates our desire to serve God and promote the common good, better and more effectively. We are resolved to work together with the Church, understanding secular society as a sign of the times. It provides an opportunity to renew our presence at the heart of human history. The four preferences are integrally related and needs to be worked out together for complete harmony in the world. They are :

1. Showing the way to God through the Spiritual Exercises and their practice of discernment.
2. Walking with the poor, the outcasts of the world, and those whose dignity has been violated, in the mission of reconciliation and justice.
3. Walking together with young people, to build a hope-filled future.
4. Working together to care for the earth, our common home.

This edition of the newsletter focuses on UAP 3 and 4. The apostolic renewal of the Society of Jesus that will flow from putting the universal apostolic preferences into practice depends on greater collaboration—among Jesuits and companions in mission.

JOURNEYING WITH YOUTH

Youth is a time for fundamental decisions and the beginning of fulfilling our dreams. And yet, young people today face enormous challenges: the uncertainty of relationship in a digital era, diminishing opportunities for work, the growth of political violence, discrimination, degradation of the environment. All of this makes it difficult for them to find a road where they can build supportive personal and family relations based on solid spiritual and financial foundations. Jesuit programs are committed to meeting the youth where they are and promoting a healthy and safe environment for children and young people so that they can develop their full potential as human beings.

CARING FOR OUR COMMON HOME

Each of us is a significant part of God's Creation and each of us has our own personal role to play in animating God's vision for the care of our common home. Aligned with our Jesuit mission of reconciliation and justice in Christ's command to love one another, this framework encourages us to examine our individual and collective actions and habits through key reflection. The cry of mother earth cannot go unheard. On the contrary, it should become central to any Jesuit educational work that wishes to align itself to the mission of the Society of Jesus. Jesuit schools, Colleges, Universities and other educational Institutions across the globe have been discussing and reflecting on the importance of forming students who understand that being persons for and with others today also means embracing the care of our common home as a fundamental dimension of our humanity.

Hence we need to discern in our communities, Institutions and families on how to respond to the Universal Apostolic Preferences and set strategic directions to act on them.



Rev. Fr. Joseph Kulandai, SJ

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Universal Apostolic Preferences (UAP 3 & 4)

Rev. Dr. Dominic Savio, SJ
Principal, St. Xavier's College (Autonomous), Kolkata.

The Universal Apostolic Preferences of the Jesuits bear testimony to the significance of an on-going journey to mark the auspicious occasion of the 500th anniversary of the canonisation moment in the life of St Ignatius of Loyola. St Ignatius had an intrinsic inclination for identifying God in all things which found meaningful expression in his attitude to nature and all created beings in God's universe. Mapping the contours of this journey demands a profound understanding of St Ignatius's perception of the natural environment. Ignatian philosophy is closely intertwined with an awareness that nature is a manifestation of God's will. Man is offered love and protection by God through the earth which is a sanctuary for existence and sustenance. According to St. Ignatius since the inception of civilization human life has been marked by a threefold relationship between God, mankind and creation. Our Ex Superior General Fr. Peter-Hans Kolvenbach observed that these relationships are so intimately linked to one another that it is utterly impossible to arrive at an understanding of God unless one feels God in his immediate environment. It is imperative that one relates to God through nature.

If in any way this link is severed the relationship with God is rendered dysfunctional. It is the earnest duty of man to take care not only of his fellow beings but it is a spiritual imperative that one takes care of Mother Earth which is at the centre of the cosmic configuration. The focus of the webinar today is caring for our common Home and journeying with Youth. To enlighten us on caring for our common home we have with us Rev. Dr. Pedro Walpole, SJ, Director of Research, Institute of Environmental Science for Social Change, Philippines and Global Coordinator of Ecojesuit and Network Coordinator of the River above Asia Oceania Ecclesial Network.

The second issue of our deliberation and reflection is journeying with Youth. Rev. Fr. Edward Philip D, SJ, the dynamic and inspiring Youth Coordinator of the Karnataka Jesuit Province will enlighten us in this regard. Our Superior General Fr. Arturo Sosa, SJ observes that Youth is that vital and representative stage in an individual's life which involves a fruitful channelisation of one's energies that enables one to take fundamental decisions for the making of a better society. Through effective actions youths seek meanings in their existence for the fulfilment of their dreams. It is an imminent necessity on our part to accompany the youth in their quest for identity to realize their dreams. When we accompany the Youth in their path of self-realization we share God's initiative and advice to them and teach them discernment. We show to them that the way one can reach God is by showing solidarity with human beings and be transformative agents of change for a just world order. By accompanying and empowering the youth we help them to blossom in life, discern the pathway to God and help them achieve happiness by contributing to the holistic wellbeing of society.

About fifteen thousand five hundred plus Jesuits around the world have set out on a roadmap called the UAPs, that is, Universal Apostolic Preferences. In their 481 year old history, beginning in 1540, the Jesuits have so far held 36 General Congregations where in an exemplary manner the Jesuits have asked themselves two fundamental questions: 1) Is what we are doing now in accordance with the will of God and His expectations from us? and 2) What greater and newer responses is the Lord asking of us in the globalized context today so as to serve him in a better and meaningful way? The Jesuits believe that the Spirit of God has each time guided them to the right path and right direction in order to serve God for His Greater Glory by fulfilling the Divine will.

In 2016, they held their 36th General Congregation. Inspired by the Holy Spirit, the Jesuits adopted a set of four global concerns termed Universal Apostolic Preferences or UAPs. These are: 1) Showing the Way to God 2) Walking with the Poor 3) Journeying with the Youth and 4) Caring for our Common Home Mother Earth.

The Jesuits aspire to make effective contributions in these significant areas. In this way they would direct their spiritual energies to the reawakening of consciousness for the making of an egalitarian society. In this way the Jesuits are continuing the transformation through their dynamic and epoch-making founder St. Ignatius. St. Ignatius himself had experienced a turning point in his own life, known as the cannonball moment, which in turn effected the same in the life of his companions. Eventually he and his companions, the first Jesuits brought about great transformation in society of their

time commencing in 1540, in various domains like Ecology, Youth, Education, Pathway to God and a plurality of other areas.

This transformation continues till today very dynamically by the present Jesuits in diverse ways very specially through the four UAPs that have started functioning in 2019 and will conclude in 2029, for ten years. To achieve this transformation, we need to pray for Inspiration, Guidance and Courage from God through the intercession of St Ignatius. May St Ignatius, our Founder and St. Francis Xavier, our Patron, who in 1542 brought and effected this spirit of transformation in India and Asia may guide our steps and bless us and especially our Faculty to fulfill our Jesuit vision and mission through these UAPs at St Xavier's College and other Jesuit Institutions.



When it comes to the care of our
common home, we are living at
a critical moment of history.

Pope Francis

quote fancy



Youth - An Icon of a Hope-filled Future

Rev. Dr. Mourlin K, SJ
Assistant Professor, St. Xavier's University, Kolkata

Introduction

On February 19, 2019, the General of the Society of Jesus has introduced the Universal Apostolic Preferences (UAP) for the next 10 years and invited Jesuits across the globe to educate, enable and empower themselves to implement UAPs. The UAPs would guide the Society of Jesus forward, inspired by the discernment of the spirits, concern for the excluded, care for the environment, and journeying with young people. In this article, the author is trying to articulate the meaning and the purpose of UAP 3: "To accompany young people in the creation of a hope-filled future", it continues to express in the following;

Journeying with Youth is a guide for all the Jesuits to walk with the youth to help them make fundamental decisions and fulfilling their dreams. Youth around the world are facing enormous challenges: uncertainties in today's digital era, unemployment, political violence, discrimination, and many other challenges. Apostolic communities need to provide spaces open to youthful creativity in which they can encounter with the God of life.

Thus, the Society Of Jesus has a road map to engage themselves in animating young people, who are the icon of a hope-filled future. Jesuits engaging with the youth today is a challenge and a task. It needs a conversion of heart to lead the young people and shape their future with mutual respect and appreciation. The article has a three fold perspective: firstly it deals with problems of young people today, secondly drawing inspiration from Ignatius, our founder and finally intervention strategies to educate and engage youth meaningfully.

Foundational Reality

Journeying with Youth in 21st Century has become significant and urgent need of the Society's Mission and engagement. Society of Jesus needs to understand the context of young people and where they are in their lives. Social realities around us have compelled to see the problems of youth from their perspectives and try to engage them to own their destiny to become the leaders of tomorrow.

In today's world, youth are living in a very complex era considering the Covid pandemic and other hazards affecting their daily lives. The problems are erupting like volcanoes. It has been reported by a study conducted by UNICEF that age group between 15 to 24 year-olds in India, are often feeling depressed or having little interest in handling mental health (Amrita Sarkar, 2022). Like wise youth are facing a numerous problems, which don't allow them to be responsible citizen with future oriented.

Single Parent Households

Family ties and relationships are changing rapidly. Traditional families are getting scattered and becoming single parent households. Since the 1950s, the numbers of the single parent households around the world have significantly increased. It has been estimated that nearly 14 million single parent homes are responsible for 28 million children. Raising a child in itself is difficult enough, no matter whether it is a single parent home or not, especially with tough economic conditions. Thus, children are given more freedom of life and enjoy focused attention. When they are exposed to social relationships, they are becoming possessive and problematic individuals to manage.

Materialism

Youth live in a society that promotes materialism and young people are taught to measure success and happiness in life based on how much stuff they have rather than what they are. Young people have a Materialistic view on life that can result in dissatisfaction when one doesn't have enough and can negatively affect a person's life. Thus, looting of money, killing of business leaders and forced flesh trade have become an option to make a living.

Education Inequality

Education has become a commodity and that commodity has to be purposed. Many Young people seem to have unequal access to proper education and throughout the world, there have been continuous attempts at reforming education at all levels. According to the World Inequality Database on Education, there is nearly 25% of children worldwide have never been to primary school and early dropouts. The problem of Access to education is based on power conflicts and other means.

Pattern of Changes

Youth - the critical phase of life, is a period of major physical, physiological, psychological, and behavioural changes with changing patterns of social interactions and relationships. Many research show that Youth are caught in the web of relationships and unable to handle them. Thus, Youth are prone to psycho-sexual abuses and pattern of sexual engagement.

Issue of Self Harm

Self-isolation, withdrawal symptoms and aloneness among young people are found to be increasing. They are captivated by substances such as drugs and alcohol and they're often tempted to self-harm. It's imperative, in 2021, that parents open their eyes to this issue and try to grapple with the issues to be tackled. Self-harming has become a way of punishing one-self without realization of what has happened to one-self.

Issue of Acceptance

Many young people suffer from acute non-acceptance of self. The non-acceptance of self is due to their lack of maturity and perspective. A recent study published in the journal Plus One showed that there was a significant link "between children's psychological maladjustment and perceived paternal and maternal rejection." Thus, the acceptance of self and others is a doubt for young people who have low self-esteem.

Gender-Affirming Issue

Academic researches have indicated that Transgender and gender-nonconforming (TGNC) youth, who suffer from gender dysphoria are at a substantially elevated risk of numerous adverse physical and psychosocial outcomes compared with their cisgender peers. Thus, these are vulnerable adults who are subjected to violence and abuse, are to be asserted.

Issue of psychological well being

Youth Survey 2021 of Australia has revealed that Nearly 72 % of young people are were highly concerned about mental health as a personal issue. Mental health has become vital for them to handle it. The young people are battling with acute depression and anxiety. Some studies show depression is linked with social media. Regardless of the source, it's crucial for parents to watch for the dangerous warning signs of depression and anxiety. Find a trustworthy doctor and consider therapy if your teen shows signs of ongoing or worsening symptoms.

Thus, Society of Jesus has faced with numerous challenges to work with young people with commitment and dedication. This will help the young people to understand the realities in which they are and able to handle situations at given time to create a life of opportunities. In order to help the young people, Society of Jesus has an opportunity by the way of UAPs, particularly walking with youth for creating a hop-filled future.

Foundational Experience

Ignatius was a person of desires and success than willing to forgo himself for the service of God. Inigo had a deep desire to win the battles and establish his name and fame. As Young Inigo was attracted to glory of the world which has appeared to be monument of success. The move from a world of desires to a world of dedication to God and his people is the basic foundational experience. The cannonball struck the soldier, Inigo Loyola, shattering his legs and confining him to a bed for months of recovery. During his recovery, he begun to read a life of Christ and a book on the lives of the saints, the only reading matter the castle afforded. In an uninterrupted quietness of his soul, he was able to reflect on his past life and began to experience the winds of change in him with the graces of Christ who was the reference point. The Cannonball moment also gave him a new orientation and to change the direction of life moving from self-centred to God-Human

centred. The Cannonball moment is the foundational experience for Ignatius of Loyola, who has become a soldier of God, a friend of the poor and a leader. Thus, the Cannonball moment has helped him to understand the meaning and purpose of life in a new way. This was a life-altering wound that enhanced Inigo to re-evaluate his life, and commit himself totally to God's work and his mission on earth.

By experiencing the divine sparks in his life, he made a break with his former life as a courtier and started off on a new journey. He gradually came to experience an inner peace which he claimed to have enjoyed the rest of his life. Under St. Ignatius' influence, the first companions like Francis Xavier, Peter Faber and others chose to imitate Inigo's way of life and have abandoned their plans for worldly careers in favour of a life dedicated to God. Walking with his companions has enabled him to see the world from their perspectives and helped them to become men for others and with others in serving God and humanity. For Ignatius, Walking with others has given him immense courage to face one-self in order to educate others to see the world in a newer way through the eyes of the divine. The encounter between companions and him was a process of conversion of self and orienting themselves towards the service of people through divine sparks.

Foundational Strategies

Drawing from the in inspiration of our founder St. Ignatius of Loyola, He has motivated his companions to become men for others and serve the poor and the needy. He further helped them to experience the divine sparks in their lives as he has encountered the divine personally and made them realise that they are the channels of divine grace to spread the Peace, Justice and fellowship. Thus, the followers of Ignatius are men of frontiers, zealous missionaries and vibrant activists who sacrificed their lives to build a hope-filled future among young people as we establish the universal apostolic preference on Youth.

The Choice of Walking with youth is not neither new to the Society or to the church. Society has taken adequate steps to animate and build leadership among young people since its inception. Pope Francis has urged us to have a culture of encounter, which is a call inviting us to dare to keep alive a shared dream that has a place for everyone. In this process, the Jesuit Characteristics of Education make sense. Those also have indicated that Cura Personalis and forming men and

women for others are the basic sources of educating young people who are in our institutions.

Walking with youth has a two dimensional approach namely personal (youth) and institutional (Jesuit Institutes). This is purely and institutional commitment to walk with the young people with a path of conversion and engagement.

Institutional Strategies

Jesuits along with Church recognize the importance of the perspectives of the young. We have to stand at their side. We glimpse the future with them. We walk with them in order to perceive and discern where the Spirit is leading our world and our Church. The figure below demonstrates the important dimensions of Institutional strategies.



Spiritual Animation

Pope Francis has said that A person who is not convinced, enthusiastic, certain and in love of Jesus, will convince nobody. Walking with Youth has to be rooted and grounded in the person of Jesus, which was the hallmark of Ignatian spirituality and the life of Ignatius. We need to help young people to live the Gospel in an authentic way, by being exemplary and courageous, open concretely to hope and focused on the common good. We immerse ourselves in the relationship with the Lord and enjoy it. So that young people who are with us could recognize the sown seeds and ripening fruits in their lives. It is a question whether we are with Him or without Him to live authentically as witness.

Place of Safe Environment

Growing paedophilia among priests and religious communities has indicated that young come to us with fear and anxiety than freedom and fellowship. Jesuit institutions should promote a health and safe environment to share and dialogue with young people and invite them to be partners in our mission. This safety environment in our communities would ensure young people to aspire true freedom, opening up to creative spaces and contributing to the emergence of a humane, intercultural society. When Jesuits maintain personal, institutional and public spaces, youth will grow in

freedom and share their stories confidently to accompany them.

Feeling loved and forgiven

Youth today expect being loved, accepted and appreciated. We need to cultivate the attitude of appreciation that helps youth to imbibe the culture of gratitude and appreciation as they engage with us. If we show ingratitude to our existence and way of life, they will turn their back too. Therefore, we need to place utmost priority on young people of all religions to help them get to know their spirituality in depth and to feel themselves loved, saved and forgiven. The teaching of acceptance, love and forgiveness to youth as a life skill needs to live within a setting where love and forgiveness are alive and practiced and communicated.

Openness to Youthful creativity

Jesuit Mission among youth is to help young people to develop entrepreneurship skills and livelihood. It aims to develop an enterprising mindset among young people and encourage them to take responsibility for their own life and success. This call for youthful creativity and innovation that would enhance their employment and growth.

Thus, the institutional framework is important for enhancing youth and their skill building. This would contribute to the Jesuit mission and its dynamics.

Personal Strategies

While Institutional Strategies are framed, we need to animate youth to develop their growth strategies that would enhance their growth as mature adults, confident individuals and transformed leaders.

Value Fit

We commit our selves to build youth as value-oriented individuals. Our Values and systems are the motivational drivers that are important to contribute to their growth. Fostering the value addition to youth is agenda of our engagement. Our institutional Values describe things such as how people behave, treat each other, their motivators, and how they make decisions and help them to practice such values in their lives as the face of our institutes wherever we can't be present. The value driven engagement with youth may lead them to become the lifelines.

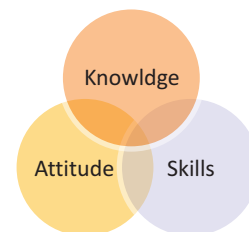
Talent Fit

Talent plays an important role in identifying young people

who are creative and innovative. Young people need to build creative and innovative thinking and the ability to turn challenges into opportunities, setting and achieving goals with limited resources. Youth need to acquire competences, knowledge and skills so that they can perform best when their personality matches what they need to do for the job. Thus, the sole focus of our interventions is to create a skill set for youth and help them to develop them so that they are ready for the jobs.

Synergy Fit

Youth by nature like to work in teams and do things creatively. We need to educate them to understand the role of synergy and its importance in achieving the common goal. For me, Synergy is a strategy where Youth (individuals) combine their efforts and resources to accomplish more collectively than they could individually. It eventually results in increased productivity, efficacy, and performance. We help them to work in a collaborative environment to complete the given task. We as Jesuits encourage Synergistic Behavior among the youth so that youth may have "Life Changing" experience to work with teams and contribute to the growth of organizations where they work.



Conclusion

We are at the end of the road of exploring UAP 3: "To accompany young people in the creation of a hope-filled future". Our focus is to accompany young people who are vulnerable in the hope that they will find grounds for hope in the connections they build with and through us to society. We need to develop the habit of discernment, attending to our own hearts and to our world, asking what matters most deeply and reflecting on what we are doing and that is integral to our way of proceeding and calls our mission and ministry meaningful. We need to primarily engage the heart. In reflecting on our lives and work they are things that should excite us and so influence how we live and work and the choices we make about how we spend our time, orient our ministries and cooperate with others. Thus, UAP 3 has been a motivation and an inspiration to journey with young people, who are leaders of tomorrow. Our conversion of heart gives us energy to get up each and every morning to breathe life into them through who we are, what we do, and how we do it with our mission preferences.



Journeying with Youth – A Clarion Call!

Rev. Fr. Roshan Tirkey, SJ
Vice Principal, St. Lawrence High School, Kolkata

“Our works seek to be spaces open to youthful creativity, spaces that both foster an encounter with the God of life revealed by Jesus and deepen the Christian faith of the young. Such spaces should help young people discern the path by which they can achieve happiness by contributing to the well-being of all humankind.”

- Fr. Arturo Sosa
(Superior General of the Society of Jesus)

Youth is a time for fundamental decisions and the beginning of fulfilling dreams. They embrace their dreams influenced by their socio-political and economic factors. Sometimes their dreams are shattered because of the lack of opportunity and misguidance. Pope Francis says that young people, most of whom are poor, face enormous challenges in our world today, including reduced job opportunities, the uncertainty of relationship in a digital era, economic instability, increased political violence, multiple forms of discrimination, and progressive degradation of the environment. All of this makes it difficult for today's youth to find a road where they can build supportive personal and family relations based on solid emotional and spiritual foundations.

Young people live in the tension between the impulse toward cultural homogeneity and the emergence of a human society built on the sort of inter-cultural encounter that respects diversity and is enriched by it. The logic of the market economy leads to homogeneity. But young people seek a diversity that emerges from exercising true freedom and that opens up arenas of creativity, in which they contribute to building a humane society that consists of many cultures. From that basis, they will be able to dedicate themselves to building together a culture of safeguarding that guarantees a

healthy environment for children and young people and the conditions in which all people can develop their full human potential.

The modern world, for youth, is both exciting and excruciating. It is exciting since life is generally characterized by diverse opportunities, scientific and technological developments, networking and economic growth. The modern world is also excruciating due to individualism, consumerism, superficiality and diminishing moral values. It is a time of exceedingly storm and stress. Young people are confused about what will give them lasting happiness or sustain their lives. Hence, knowing the challenges they face and accompanying them while they face these uncertainties with resilience is the need to the hour.

One of the four Jesuit Universal Apostolic Preferences, namely, ‘To accompany young people in the creation of a hope-filled future’, is a commitment to journey with youth in their joys and sorrows, successes and drawbacks, and to help them to realize their potentials. Journeying with youth is one of the main ways in which Jesuits live out their commitment to the Gospel today. On 31 July 2021, the feast of Saint Ignatius, Fr. Arturo Sosa decided to make a concrete symbolic gesture. Together with a group of young people, he walked the last few kilometres of the ‘Camino Ignaciano’, the 650-kilometre route from Loyola to Manresa in Spain. This age-old practice of walking as a pilgrim has helped and still helps many people to undergo a spiritual experience as they search for meaning, find new direction, overcome limitations, listen to nature, and eventually meet God.

To accompany young people in the creation of a hope-filled future is a call to become what Pope Francis refers as

‘custodians of wonders.’ The call of the Jesuit Universal Apostolic Preferences requests accompaniment to young people to dialogue and discern, so that stories of differences may be gazed at as stories of God’s own boundless diversities. Experiences teach us that by providing spaces for young people from different religious backgrounds to enter into respectful conversations, we can help them to grow in their knowledge of God. They become exposed to new stories, which will allow the eyes of their hearts to see that the rich tapestry of our common humanity is all the more beautiful when diversity is embraced. Such stories allow hope to grow, and on several occasions, they lead to the birth of common initiatives to walk with the poor and the marginalised.

The 2018 Synod on ‘Youth and Vocational Discernment’ recognizes the importance of the perspectives of the young. The synod pointed out that many young saints have allowed the features of youth to shine forth in all their beauty, and in their day, they have been real prophets of change. Their example shows what the young are capable of, when they open themselves up to encounter God and humanity. Listening was undoubtedly one of the most significant keys to interpreting the synodal journey. The synodal process promoted the exchange of testimonies and reflections. It was exciting to hear the passion with which societies are engaged for and with young people in different parts of the world, trying to make their joys and drawbacks, as well as their hopes and anxieties, its own. While some of these are common to all, others are peculiar to a region or country. Listening transforms the hearts of those who do it, especially when it takes place with an interior disposition of harmony and docility to the Spirit. The experience of this synod has shown that such a process is not only possible but also fruitful.

The post-synodal exhortation of Pope Francis to young people says, “Jesus, himself eternally young, wants to give us hearts that are ever young. God’s words ask us to ‘cast out the old leaven that you may be fresh dough’ (1 Cor. 5:7). St. Paul invites us to strip ourselves of the ‘old self’ and to put on a ‘young’ self (Col. 3:9-10).” In explaining what it means to put on that youthfulness which is being renewed, he mentions ‘compassion, kindness, humility, meekness and patience, bearing with one another and forgiving each other if anyone has a complaint against another’ (Col. 3:12-13). Being truly youthful means having a heart capable of loving.

The aspects of Jesus’ life can prove inspiring for all those young people who are developing and preparing to take up

their mission in life. Jesus had no use for adults who look down on the young or lord it over them. He insisted that ‘the greatest among you must become like the youngest’ (Lk. 22:26). “He does not teach young people from afar or from without, but from within your very youth, a youth he shares with you” (Christus Vivit, n. 30). It is important for today’s youth to contemplate the young Jesus as presented in the Gospels, for he was truly a youth, and shared many of the features of young hearts. He was deeply connected with the Father and showed profound compassion for the weakest and the excluded. He had the courage to confront the powerful oppressors and he knew what it was to feel misunderstood and rejected as experienced in the Garden of Gethsemane. He turned his gaze to the future, entrusting himself into the hands of the Father by saying, ‘Into your hands Lord, I commend my spirit’ [Luke 23:46]. All young can see themselves in crucified and resurrected Jesus and get inspiration to live a hope-filled life.

As the lamp guides the people in darkness so too education is a lamp that guides people in values and morals. Jesuit education institutions play important and vital roles in formation and transformation of the youth through various formative activities. These institutions are ‘homes away from home’ for many young people. These are the places where young people enter and exit freely with lot of comfort and caring. St. John Paul II used to say that the youth of today do not want teachers but witnesses. The youth are looking for role-models whom they could follow closely in their lives. The fact is that today’s youth have their own mind set and views when it comes to their aspirations and future prospects. While we nurture their dreams and aspirations, we also have the responsibility to ensure that they have the right kind of value systems that fuel and sustain them for a bright future. To accompany young people demands the authenticity of life, spiritual depth, and openness to sharing the life-mission that gives meaning to who we are and what we do. It demands personal, communitarian and institutional conversion.

The apostolic works of the Society of Jesus can make an important contribution to creating and maintaining spaces that are open to young people in society. Her works seek to be spaces open to youthful creativity, spaces that both foster an encounter with the God of life revealed by Jesus and deepen the faith of the young. Such spaces should help young people discern the path by which they can achieve happiness by contributing to the well-being of all humankind. Young people continue to be open to the future, hoping for a life of dignity in

a reconciled world that is in harmony with the environment. The viewpoints of young people can help us understand better the change of era that we are living through, and the hope that it brings. Today, in the transformation of humanity that is coming into existence through today's digital culture, opening us up to a new era, the most important roles are played by the young. We are living through a period of change which is going to give birth to a new kind of humanity and a new way of putting together the personal and social aspects of life. Young people are the bearers of this new mode of living that has the capacity give light for the path towards justice, reconciliation, and peace that comes from the experience of meeting God.

The Jesuit Universal Apostolic Preferences demand immediate implementation by changing any styles of life or work that hinder the renewal of the persons, communities, and works committed to journeying with youth. The response of the first apostles who abandoned their nets and their lives as fishermen in order to set out on the path of commitment is inspirational and it challenges us to abandon our comfort zones and walk with the poor and deprived youth. Keeping vividly in mind the experience of the First Jesuit Companions in Venice, General Congregation 36 invites the Jesuits and all their collaborators to return to the roots: sharing their lives together as friends in the Lord; living very close to the lives of the poor and the needy; and preaching the Gospel of love, joy and hope.

Ignatian year is a clarion call to draw inspiration from Ignatius, the Pilgrim. His inner struggle and conversion led him to a very close familiarity with God. This familiarity, this intense love,

allowed him to find God in all things and to inspire others to form together an apostolic body, full of missionary zeal. All of us are heirs to that charism and responsible for its legitimacy in the times we live in. This invitation and opportunity mean we need to strive more than ever for the intellectual depth that our foundational charism and tradition demand; and that depth must always be accompanied by an equivalent spiritual depth for the greater glory of God and the service of God's people with preferential option to the poor and the marginalized youth. The apostolic renewal of the Society of Jesus that flows from putting the universal apostolic preferences into practice depends on greater collaboration: among Jesuits and their companions in apostolates, between Jesuit ministries and apostolic units, and with all the people and institutions that contribute to reconciliation among human beings, with creation, and with God. General Congregation 36, confirming the orientations of GC 34 and GC 35, states that 'mission is deepened, and ministry is extended by collaboration among all with whom we work'.

Father Arturo Sosa assures Society's love and commitment to the youth on our behalf, "We want to learn to accompany you. We want to learn from you. Each one of you is unique, born with a special purpose. Ignatius struggled to discover the meaning of his life. In him you can find inspiration as you struggle to make your life meaningful and as you ask how you can contribute to building a better world, where the dignity of people is respected and where you live in a joy-filled harmony with nature. I express our desire to accompany you through what we do and most especially through who we are – people willing to share our time, our dreams and our hopes."





Journeying with Youth

Rev. Fr. Edward Philip D, SJ
Province Coordinator of Youth Ministry
Karnataka Jesuit Province

At the outset, I would like to congratulate the management, the faculty, and students of St. Xavier's College for organising this International Webinar on Universal Apostolic Preferences. I also thank you for selecting the topic "Journeying with Youth" as it is most relevant in the present context. I extend my gratitude for having given me this opportunity to reflect and share some of the points with you.

Dear friends, we have gathered in this virtual platform to discuss and discern about our role and responsibility towards nation building, in and through our accompanying the youth. It is apt that we spend some time reflecting on our role and responsibilities so that we could help them become good human beings, and enlightened and responsible citizens.

We, the Jesuits, are celebrating worldwide, the jubilee of St. Ignatius's cannon ball moment. We see that as a young, ambitious Ignatius makes a journey from selfishness to selflessness, from being self-centred to being other centred. He also made a journey from the outside to the inside and from the inside to other side (world centred).

'Journeying with' means not just being together, unaffected and uninfluenced, but investing ourselves, our time, energy. It means commitment to the other, relationship, growing together, accepting responsibility for one another.

While affirming the vitality of the youth and inviting them to discover who they are and how they develop their own way of being holy, it's our utmost duty to accompany and empower them.

A young person, a bundle of energy and enthusiasm, courage and commitment, always has one foot forward, ready to set out. Youth is also characterised by hope and excitement.

On the other hand, the youth have to face challenges as well. Today, they face violence in different forms: "ideological & digital colonization". They also suffer from migration and abuse, reduced job opportunities and economic instability, increased political violence and multiple forms of discrimination, and progressive degradation of the environment at the global level.

In our present context covid-19 pandemic, introduction of CAA and NRC, farmers' protest, increased unemployment, increased negative media influence, all these ills make the youth vulnerable with difficulties to discover who they are and the meaning of their life.

The world today is also full of fear. Violence, conflicts and disturbances are everywhere. The youth too is affected by this fear. There is also the fear of not feeling appreciated or loved, the fear of having no choices. When we feel that way, our fear starts to fester and is inevitably joined by the feeling of being paralyzed. Thinking that in this world there is no longer any room to grow, to dream, to create, to gaze at new horizons, to live, to enjoy the magic of encountering others, making friends, sharing dreams, walking at the side of others.

But the youth can also experience another kind of sickness today, which is even more dangerous. It is confusing happiness with being comfortable, calm, and safe. Comfort and security that put us to sleep. It is an escape to the virtual world and being glued to computer screen or mobile. A pastime that keeps us safe from any kind of pain and fear, that allows us to stay home without needing to work at, or worry about anything.

That is probably the most harmful and insidious form of paralysis, since little by little, without even realizing it, we

start to nod off, to grow drowsy and dull while others – perhaps more alert than we are, but not necessarily better – decide our future for us.

In fact, for many people, it is much easier and better to have drowsy and dull adolescents who confuse happiness with a cozy life. For many people, that is more convenient than having young people who are alert and searching, trying to respond to God's dream and to all the restlessness present in the human heart. People in power do not like youth asking difficult and disturbing questions and therefore provide them with all kinds of distractions that will make the youth drowsy, dull and dispirited.

The other Challenges faced by youth are:

1. Unhealthy Competition: we are familiar with the saying of Darwin, "Survival of the fittest" but in this unhealthy competitive world it is "survival of the crooked". Competition is present at all level and in very field. Competition begins at home, with our siblings, neighbours, classmates, friends etc. You have to run the race otherwise you can't survive.
2. Comparison: In the words of our former president late Dr. Abdul Kalam "The world doesn't want you to be you". The media, advertising companies and cosmetic industries want you to be someone else. We become victims of this psychological ailment. We lose our real worth, identity, vision, purpose in life.
3. Compromise: The present social structure, political system and economic condition force us to compromise with our personality, values, moral principles, talents, perspectives and outlook, critical thinking and contributing capacity. They set a different standard to live by. If we don't live up their expectations, then we have less chance of making it the mainstream.
4. Criticize/ Condemns us to the past and to our forced social status: It thrives on our human weakness, mistakes, vulnerability. In varied ways and means it justifies the cruel and dominating practices of caste system, gender biasness and unjust social system.

In this context youth are to be

1. To be conscious and concerned towards the issues, problems in and around us that challenge our very existence.
2. To be creative and confident youngsters to raise voice,

express themselves, to be heard and acknowledged.

3. To construct/ create personality and better future for themselves and for others.
4. To contribute to society, especially to the needy, marginalized and the outcasts of the society.

Dear young people, we did not come into this world to "vegetate", to take it easy, to make of our lives a comfortable sofa to fall asleep on. No, we came for another reason: to leave a mark. It is very sad to pass through life without leaving a mark. But when we opt for ease and convenience, for confusing happiness with consumption, then we end up paying a high price indeed: we lose our freedom.

Happiness is not the same as comfort and convenience of a closed cocoon. Being happy is not the same as going through life asleep or on tranquilizers. We should reject the notion that the only way to be happy is to live in a haze. Certainly, drugs are bad, but there are plenty of other socially acceptable drugs, that can end up enslaving us just the same. One way or the other, they rob us of our greatest treasure: our freedom.

Today's world demands that our youth be makers of history because life is always beautiful when we choose to live it fully, when we choose to leave a mark. History today calls us to defend our dignity and not to let others decide our future. It wants your hands to continue building the world of today. It wants to build that world with you.

So today, my friends, the world is inviting you, calling you, to leave your mark on life, to leave a mark on history, your own and that of many others as well. Life nowadays tells us that it is much easier to concentrate on what divides us, what keeps us apart. Today, you need to live in diversity, in dialogue, to experience multiculturalism not as a threat but an opportunity. Have the courage to build bridges than walls! Take the path of fraternity. Build bridges. The very first bridge is the great bridge of brotherhood.

Dear teachers, guides, parents and people in responsible positions,

"Our present social, political, economic context brings disappointment and hopelessness leading to frustration, especially among young people, when they face structural injustice. How do we accompany and empower the youth?

We too were young once, and we know that youth is an interesting stage of life. Youth is not merely a matter of age. It

is an attitude, an openness and generosity of spirit, a disposition of attentiveness to the reality. Hence, the best way to mature is to be young at heart.

1. We need to be positive and proactive towards them, listen attentively to the young and speak to them intentionally. This approach of empathy enriches. It keeps one young, energetic and enthusiastic. It also allows young people to come closer to others, learn and become productive and make their contribution to the community.
2. As responsible and concerned persons, we need to listen to the youth because they are not merely the future but the present. Hence, we should provide young people with spaces and initiate processes, which they can make their own, where they can come and go freely, feel welcome and readily meet other young people, in times of difficulty and frustration, or of joy and celebration.

Too often we, especially the educators, guides, people in responsible positions, do not listen or make space for the young. They are dismissed as rebellious and problematic. Their criticism is conceived to be antipathy towards the system and society. Their restlessness and passion is regarded as immature, sometimes even risky.

Once we listen to them, we can surely talk to them and teach them. We can help them make the fundamental decisions in life, decisions to insert themselves better into society, to give deeper meaning to their existence and to realize their dreams, to make their contribution. In other words, once we listen to the youth, we can teach them to discern.

3. However, supporting the young isn't solely a role for those involved in education or youth work. It is the responsibility of the whole community. It should be a collective responsibility to accept and motivate, encourage and challenge the youth. A community must make a home for young people.
4. To visit the world of the youth, we need to listen to them; their dreams and desires, successes and struggles. A deep encounter with the youth can help us to understand better the epochal change that we are living in, and its hope-filled newness. The young people are the principal protagonists of an anthropological transformation, which is ushered in by the digital culture of our time. They can open humanity to a new historical epoch. They can teach us a new way of structuring human life in its

personal and social dimensions. Young people are the bearers of this new form of human life.

5. We can make an important contribution by creating and maintaining spaces for the youth. Spaces open to youthful creativity, spaces for fun and frolic, spaces that help young people discern the path to achieve happiness by contributing to the well-being of all humankind. Spaces specially that foster an encounter with God and deepen the faith of the young.
6. However, to accompany young people is not easy. Youth do not appreciate words and messages alone. They need examples of credible persons, personified messages, live examples, role models.

We need to be credible, men and women of integrity. It implies an authenticity of life, spiritual depth, and openness to share our life-mission that gives meaning to who we are and what we do.

In other words, this attempt puts us on the path of continual personal, communitarian, and institutional conversion. If we are open to change, we can change the youth. If we constantly learn we can make youth also learn. We can help them live this stage of their lives more profoundly, provided we ourselves live our own lives profoundly and meaningfully.

Conclusion

"Journeying with youth towards hope filled future" is a dream about new life and a dream of transformation. It invites us to pay attention to the words, situations, aspirations, visions of the youth.

To accompany the youngsters who are at the cross roads, we need to understand them, accompany them, listen to them. Reframe, reinterpret their sad stories, narratives, perspective; provide them with new, hope filled, bright picture about their situation and world.

Accompaniment requires; our time, space, readiness to be with them, invest our energy. It requires being there for and with them, and crating spaces, not just occupying them.

Courtesy:

Rev. Fr. Fredrick D' Silva SJ

Rev. Fr. Joseph Rodrigues SDB



Accompanying youth: Integral Part of Jesuit Mission in Education

Rev. Fr. Peter Durairaj, SJ
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Introduction

The term “Accompaniment” is not unknown to Jesuit tradition. It has been there in the Society from the time of St Ignatius of Loyola, the founder of the Jesuits. We see that how God himself accompanied young Inigo, as a teacher would do to his pupils, to reach his goal. St. Ignatius never thought that he would have deep encounters with God in his life and that God would systematically accompany and guide him towards a new set of goals in life: to praise and glorify God and to love and serve fellow humans.

Dynamics of Accompaniment of Youth

- 1. Young people's enormous challenges:** The uncertainty of relationship in a digital era, diminishing opportunities for work, the growth of political violence, discrimination, degradation of the environment. All these make it difficult for them to find a roadmap to march ahead confidently into a hope-filled future.
- 2. Accompaniment uniquely relevant in today's context:** The Society of Jesus has made “Journeying with the youth” as one of its four Apostolic Preferences from 2019 to 2029. Using the subtitle “accompany young people in the creation of a hope-filled future” is highlighted as a uniquely Ignatian way. It points to a new way of relating to the young people and forming them to become men of conscience, competence, compassion and commitment. In order to do this there are conditions, approaches and dispositions of the accompanying person that will be conducive to such a formation.

- 3. Creating the Conditions for Accompaniment :** First and foremost, the young person being accompanied needs to feel safe in a relationship based on trust. The accompanying person should not have any ulterior and selfish motives. It should be governed by a certain learned code of conduct.

The person being accompanied should feel accepted and welcomed unconditionally. Love is an essential element in the accompanying relationship. The accompanying person should think that the young person is the best person possible. On the other hand the young person should learn to appreciate the unconditional love of God and the unconditional love of the accompanying person.

The aim of the accompanying relationship with young people is to form them in such a way that they learn to act responsibly. The ultimate measure of accompaniment is to make the accompanied youth stand on their own feet.

The person accompanied trusts the love and wisdom of the accompanying person. As long as the accompanying person gives advice, the youth feel secure. Sometimes advice may not be available. In that case what will happen to the young? To avoid this, there should be openness on the part the accompanying person so that space is provided for the latter to learn to discern on his/her own the decision to make.

Sometimes the task of the accompanying person becomes more nuanced. For example, when the young person expresses an unconventional thought which is potentially risky, should the accompanying person give space for the former to go ahead and learn from the richness of the experience or should the accompanying

person challenge the former or even step in to stop him/her? This is a tension which is intrinsic to an accompanying relationship.

4. Approaches in the formation of Young people: There are various approaches of forming young people. Among them three are commonly practiced

I. Receptive Approach

It is the approach that young people will be seen as most receptive of the stage of development in their lives. With a receptive mind, the impact will also be more profound and long-lasting.

II. Matured Approach

In this approach young people are seen more open and they can think for themselves and more independently. The accompanying person offers optimal conditions for them to develop such needed qualities in their life.

III. Recognition Approach

In this approach, the accompanying person recognizes some good qualities from the youth and appreciates them and encourages them to grow. Here the various stages of awakening are taking place in the youth.

5. Our responses to forming young people

I. Importance to youthful creativity: We want our Jesuit apostolic works and houses to be spaces open to youthful creativity in which the encounter with the God of life, is promoted and facilitated in the life of our youth, who may follow various religious faiths and spiritual paths.

II. Promotion of Healthy Environment: We commit to promoting a healthy and safe environment for children and young people so that they can develop their full potential as human beings.

III. Helping the youth to know God: We want to help young people to know God and to feel themselves loved, forgiven and blessed. The document suggests that our institutions and parishes can adapt the Spiritual Exercises of St Ignatius of Loyola so that young people can personally know God in ever deeper ways and follow Him more closely.

IV. Community and family life style: Young people have so many possibilities in this digital age which unites them as never before. We want to walk with them, discerning

these possibilities and finding God in the depths of reality. Accompanying young people puts us on the path of inner conversion and personal transformation; it requires a new way of living in society, neighbourhood, and family situation, a way that is more coherent, more personal, more open, and more compassionate.

V. Meeting God, young people can find the path to deepest fulfillment: "I have come that you may have life and have it to the full". (John 10:10)

The 2018 Synod on Youth and Vocational discernment recognizes the importance of the perspectives of the young. We stand at their side. We glimpse the future with them. We walk with them in order to perceive and discern where the Spirit is leading our society and our world.

VI. The accompanying person not a solution to the problems: There is no guarantee that the accompanying person knows what to say in every situation. The accompanying person may feel pressured to say something inspiring, especially when it seems that the one accompanied is totally stuck. When Pope Francis was confronted by a 12-year-old girl in Manila in 2017 when she tearfully described how, as a young kid, she was forced to scavenge for food from garbage and to sleep outside on cardboard mats. "Why did God let this happen to us?" she asked, covering her face with her hands as she wept. The Pope's response is a lesson about accompaniment: it is as if the Pope was saying "I don't know the answer, but I shall be with you in the suffering." Ultimately, it is not the accompanying person who is offering the answer, but God. The Creator deals directly with the creature and the creature directly with the Creator.

Conclusion

Jesuit priest, Fr. Brian Grogan SJ once said: The greatest contribution of St. Ignatius is not the fruits of his encounter with God, but rather his sharing his way with others so that they too can have their personal encounter with God, bearing their own fruits as a result. This lies at the heart of the emphasis on accompaniment in the Ignatian tradition as a way to lead, teach, nurture and mentor people who are younger or less experienced than us.



Accompanying the Youth to A Brighter Future

Rev. Sr. Arockiamary, IBVM
Principal, Loreto Convent School, Darjeeling

“The joy of the Lord is a man fully alive”. Yes, if we look more closely into these lines, we can be certain that the youth of every nation are the ones who remain active faithfully, throughout the day, seven days a week! This is not to say however that others do not fall into this category but what I wish to specify is that the youth are the ones who directly come into contact with the functioning of the world and each one’s capacity for adjustment and understanding leads to their either acting on, or reacting to, situations around them.

Let us consider the present state of the world where we have just been through two years of an unprecedented pandemic. The world, during this time however, has witnessed an overwhelming outpouring of help rendered by different groups and communities of people, but the most noteworthy and daring steps were taken by the youth who initiated life- saving measures such as a mobile app service to help deliver oxygen cylinders to those in dire need of them. The local youth joined hands with the administration to disinfect neighbourhoods and localities through the use of herbal sprays and other natural methods of sanitisation. At the grass root level, we have witnessed how young people went about collecting and distributing food and rations to those in need. Indeed, we can rightly say that this impulse arose from their “Agre Contra”, i.e., an attitude of going against the current. For e.g., when all elders tell them- “Don’t do this... stay inside...stop moving around...don’t go there...”, they instead chose to follow the opposing tide- “I will do... I will move... I will go... let’s see...I will go out to help others!”

This spontaneous response of youngsters to render help and succour in these difficult times often made the adults anxious, irritated and annoyed; they were unable to comprehend what motivated the young people to risk

infection- nay even their lives, in undertaking works of charity- and tended to misunderstand them or view their altruistic deeds with suspicion. It is often difficult to comprehend the cause for the generation gap, especially when young people enthusiastically involve themselves with social causes... Through our condemnation of their actions, we often try to thwart their spirit. Instead, we should encourage their endeavours which are an efficacious tool for safeguarding humanity.

I recall here the lyrics of the beautiful song by Abba, “I have a dream”-

I have a dream, a song to sing
To help me cope with anything...

I believe in angels,
Something good in everything I see...

I have a dream, a fantasy
To help me through reality,
And my destination makes it worth the while-
Pushing through the darkness, still another mile.

These words resonate in the minds of the young who want to forge footprints that make a difference to the world. A young spirit who knows that he/she has been created with purpose, full of talents and grace, but whom the regular routine of life has caused to wander without a sense of direction. They become victims of divisive forces that engender prejudice, create bias and cause conflict in society. I am also reminded of the great influencer, that is, St. Ignatius who influenced Francis Xavier in his youth to move closer to God and perform good deeds in order to glorify the Lord and find the purpose for his being. My journey with the youth has at different

stages, helped me to understand myself better as I have observed their innate curiosity, their questioning spirit and thirst for the truth. I have learnt that God's ways are mysterious and I am moved to find Him in all things. Thus I feel that this generation has great potential, which to be realised needs empathetic listeners who appreciate their thoughts and validate their ideas. This generation is keen to act with commitment, responsibility and accountability and should be nurtured with care. With the proper guidance and training, they can become mission- minded young people who will be agents of change.

Accompanying them through listening

Though it is often felt that young people lack discipline and are difficult to handle, I on the contrary, have discovered that the voices of the youth are like the sparks that light up the darkness during Diwali, full of spirit, warmth, brightness, sound and wonder, which can even give us a jolt! At such moments I realised that I needed to identify myself with their feelings instead of forcing my ideas onto them, which they were unable to relate to. I gradually found myself echoing their dissatisfaction with the current economic situation and sympathising with the hardships that they themselves faced.

Youth frequently express their frustration and claim that, "God is partial and not just in His ways." This breeds negativity in them and they are often confused and distracted. In such a situation they only needed someone to listen to them- their hopes, apprehensions, fears, expectations...It is only later that I attempted to gently proffer guidance and inculcate the essential life skills in them, not as a professional counsellor would do, but as a person who was sincerely interested in their growth and wellbeing and whom they could place their trust in. This helped them to gain in confidence and realise their worth, thereby enabling them to chase their dreams with a greater sense of purpose and understanding.

Open Validation of Action

It is fashionable nowadays to encourage young people to do whatever they like confusing licence with liberty. This laissez faire attitude is counter- productive and apart from making them drift along without a rudder or firm moorings, causes distress and leads to low self- esteem. Young people at this stage are bubbling with boundless energy and curiosity for

experiencing new things in life and these need to be provided a proper focus and direction. In one interactive session, there was a question put forward by a young person about relationships, the attraction to the opposite sex and the need for social restrictions and taboos. We find that though knowledge on these topics is readily available through various sources, yet matters need to be handled with sensitivity and clarifications provided tactfully. The meaning of commitment, dedication, loyalty, healthy relationships and trust need to be explained in context so that the young can explore and examine the veracity of the views of adults for themselves, ethically. Groups like Jesus Youth, and Couples for Christ have been constituted with this purpose in mind. It is important to help young people realise the true meaning of love and healthy relationships and recognise the need for boundaries. In this way, the notion of selfish love can be transformed into a selfless one.

Authority to explore

Sometimes the discussions, talks and ideation do not arise from a firm foundation and become rather diffuse- hanging in the air as it were! As Mary Ward, the Founder of the Loreto order, has rightly pointed out in her maxims, one should be "Speakers of truth and doers of Justice." When we know the truth then no power on earth can be an obstacle for justice to prevail. Youth are like one such treasure box where wisdom, righteous action and thoughts constantly jostle with one another to bring enlightenment and pave the path for a transformative world. They are the ones who experience discomfort to arrive at the truth of any situation. While there are those who choose to remain silent, others try to step forward to bring some change which will be good for all.

I remember a time when my work with young people included clearing of garbage from the streets. As no progress was being made, young people were inducted in the team; they were given power and responsibility and many older people assured them of their support and assurance.

The young ones on their part, immediately aligned themselves with the task at hand of picking up the litter and disposing of it in a scientific manner. Everyone around was impressed to see them seriously picking up the rubbish and sweeping the place. Later, they went a step further by writing petitions, making videos and putting up street play on the issue of keeping their environment clean. I was indeed moved and got to know how a little power and assurance can work

miracles! The young on the other hand, were able to realise their strength and were galvanised by the thought that their journey was not a lonely one, but bolstered by the many who believed in them.

Journeying in Silence

I must admit that sometimes meditation, recollection, and periodical meetings can be challenging as the students feel that they are compelled to attend these sessions. Once we had taken a group to a place which they had not visited earlier. They were distracted by the unfamiliar surroundings and later through lively song and action they were able to direct their thoughts and even practice a few minutes of silence. Accompanying them at this stage was like a joyful ride since they are idealistic at this stage but their idealism is rooted in reality too.

The sharing of their feelings and experiences have helped the youth I have worked with, to give vent to their pent-up anger and bring up unresolved issues. It took time as well constant support, to help these young persons to channelize their potentialities and work for the greater glory of God but it was undoubtedly a rewarding journey.

The count of the number of young around the world is approximately-

1.8 billion which means-

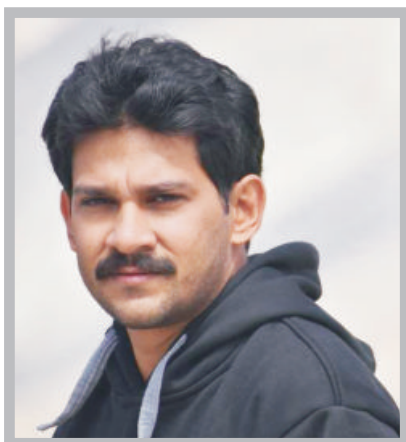
1.8 billion young and dynamic ways,

1.8 billion ways of handling challenges,

1.8 billion ways of bringing peace, so on and so forth.

The cannon ball that hit St Ignatius had two effects- one of destroying and shattering his image along with his dreams and the second was that in the silence of recovery and in the depth of loneliness and desolation, the unfolding of this most dynamic person happened. Just as the small mustard seed needs proper care and nourishment to sprout, in a similar way, accompanying the youth till this day has made me realise the richness of God who is present in each and every one of us. I am glad to be a part of this unfolding mission of God. The youth of today, when guided properly and accompanied in an able manner, will in turn do the same for others in the near future since they have tasted the joy of being fully alive, sentient beings, unfolding their uniqueness as they grow and blossom into people of COMPETENCE, CONSCIENCE CHARACTER and COMPASSION.





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"Our highest endeavour must be to develop free human beings who are able of themselves to impart purpose and direction to their lives" – Rudolf Steiner

The one thing that one must understand about education, is that it is constantly evolving. The reason being that it aims to be inclusive for all, in order to bring out a student's innate abilities. Education and development go hand in hand and the curriculum thereby is maintained to cater to each student to mould him/her holistically to become independent and unique human being. It is due to this reason that the world too, slowly, evolved from the 'traditional system of Education'. It thus, takes into account theories such as Gardner's Theory of Multiple Intelligences into its fold, in order to create a system that ensures a progressive and positive development of learners, not only within the classroom, but also outside its four walls. These changes can be seen typically in subtle nuances even in terminologies such as the term 'extra-curricular' being referred to now as 'co-curricular'.

St. Xavier's College (Autonomous), Kolkata believes in providing a holistic development of the 'Youth' through various programmes, events, and societies. These events and societies ensure that students are not only exposed to a myriad of opportunities for their development but also take responsibility for their own development by organising and participating in the same. A few of the societies and associations that students actively participate in include the likes of St. Xavier's College Students' Council (SXCSC), All India Catholic University federation (AICUF), The English Academy, Bengali Literary Society, Hindi Literary Society, Fine Arts Society, Xaverian Quizzing and Debating Society (XQDS), Xavier's Commerce Society (XCS), Xavier's Management Society (XMS), Science Association, Xaverian Academy of Dance and Music (XADAM), Xaverian Theatrical Society, Xaverian Education Society and Enactus SXC.

AICUF provides students with a platform to develop their leadership skills as well as increase their social awareness. By participating in events such as Seminars on 'Woman' and organising events such as the 'Adivasi Diwas'. students not only develop their leadership, problem solving and organisational skills but also sharpen their emotional intelligence by being exposed to compassion, empathy, a sense of belonging and brotherhood. Apart from this, the students are exposed to various cultures across the country, while participating in Pan-India Events under this banner.

The English Academy provides a creative space for the 'youth' in Xavier's. Under the guidance of Professors and mentors, students organise annual events such as Literaria, which opens its doors to colleges across the city as well as the country. This 'fest' as such, provides a platform for students to tap into their creative skills and develop their communication skills in order to express their thoughts and ideas. Through this, students greatly develop their inter-personal and intra-personal intelligence, thus effecting their overall growth. The English Academy also works on publishing their magazine 'Ode to Expressions', that together brings into one bundle the creative abilities of students across departments and also indirectly enhances students' research and writing skills due to the research papers and articles published in the same. Considering the fact, that in a country like India which is divided by its diverse languages and cultures, such a magazine, curated by the students and their mentors becomes a unifying bond that cultivates itself to become an instrument of literary as well as artistic expression.

The Fine Arts Society provides a platform for students to showcase their unique talent and thereby hone the same, in the process. Apart from this, the students also collaborate with the Students' Council, to organise the 'Sunset Jam', 'Bonfire Evening' where students mingle with each other while appreciating art displays as well as being exposed to soulful music. Such events enable the students to develop their musical as well as visual and spatial intelligence, through their various activities, as well as hone their interpersonal and communication skills.

Similarly, the other societies and associations, too, contribute significantly towards the development of students, guiding them to take responsibility for themselves in order to make the most of the opportunities that have been provided. While working with the debating society, students involve themselves in rational and critical thinking while finding solution to poignant problems. This enables them to defend

their stance in a logical and confident manner. Thus, students develop into rational, critical and logical human beings who are capable of analysing situations and taking informed decisions. Apart from this, XADAM brings together like minded individuals who work as a team to harmonise in tune and in step. This develops students to be trusting and responsible for oneself as well as responsible to the team, developing therefore into responsible citizens of the world.

Besides all the above associations and societies the Students' Council itself plays a very poignant role in the development and growth of the youth in the institution. The Students' Council organises a range of social awareness programmes that are born out of compassion and also expose the learners to the differences in the world, making them more aware of the society they live in. They thereby develop feelings of empathy, compassion, and a sense of humanity, so as to be able to move into the world as true Global Citizens in order to bring about change. Organising 'XTrek' also falls under the purview of the Students' Council, where the students step out of the daily routine of monotonous life and appreciate the benefits that come with travelling and trekking. Travelling exposes students to various cultures, languages and landscapes that can be enriching in its own right. Students develop kinaesthetic skills and even refresh their minds in the process so that they are able to get back to their work, energised and fresh from a break. Travelling also enhances naturalistic intelligence in learners that enable them to become more observant and aware of even subtle changes in their surroundings.

One of the most important event that the Students' Council organises is the annual cultural fest, Xavotsav. One of the biggest fests in eastern India, Xavotsav witnesses an average footfall of more than 50000 individuals from more than 70 Colleges across the country. Students work together to acquire and handle corporates, maintain budgets, plan out a marketing strategy, approach guest performers and even organise pre-events to ensure maximum representation during the 3 days of the fest. Being one of the most anticipated events of the college, the students learn the nuances of working as a team and coordinating across various departments in order to ensure an absolutely smooth events. This event, as such, develops the students' problem solving, budgeting, creative and logical thinking skills. It also develops interpersonal skills as one has to work with large groups of people. Apart from this, it also develops patience and open-mindedness as the team will have to take into account

differing opinions and come to a common consensus. Xavotsav also develops communication skills as students have to deal with people from different walks of life, whether it be event managers, corporate heads, educationists or even students from other colleges, using the proper language and proper set of communication rules, based on the different scenarios. However, one of the major results of Xavotsav is the development of a feeling of unity amongst the students as they are no more segregated by departments and different sessions but work together towards a common goal.

The students of our College are also involved in various committees of the College working in tandem with the administration in order to ensure smooth processing of different issues as well as learning from their involvement in the same. The students, therefore get a hands on experience of managing crisis scenarios while working with the Disaster Management Cell and also learn to maintain and appreciate decorum and discipline while working in tandem with the Disciplinary Committee and Quality Assurance cell. The interactions with these committees develop life skills that help them grow even further after they leave the hallowed halls of the institution.

Finally, the students also actively participate in and organise events related to sports, in tandem with the Department of Sports. Participating in sports not only greatly develops kinaesthetic, visual and spatial intelligence but also focusses on honing fine motor skills as well as providing the students with the required physical exercise for their holistic growth and development. Physical sports not only ensure maintaining a healthy body but also paves the path for a healthy mind. It has been observed that learners who involved themselves in co-curricular activities scored, on an average, much higher in examinations than those who had solely involved themselves in academics. Thus, it can be seen that development does not involve only academic or physical growth, but a holistic growth and development of social, intellectual, physical, creative, emotional and artistic feelings, that can only be achieved through a balanced exposure to scholastic as well as non-scholastic form of Education, which can be seen in a distinct way within the walls of St. Xavier's College (Autonomous), Kolkata.





Care For our Common Home

Rev. Dr. M. Thamacin Arulappan, SJ
Principal, St. Xavier's Collegiate School, Kolkata,

It is in our nature
to wander and roam
But, it is also in our nature
to find ourselves a home...

What then is a home?

To answer this seemingly innocuous question, we need to ponder on whether it is a place we live out of or whether it is a place we live in. The answer, not surprisingly, may not be decisive or conclusive. The mere construction of a shelter does not make it a home nor do the paraphernalia that go inside of it; instead what does make it a home is who inhabits it. This is true with the big wide world we all live in – this bountiful gift from God is indeed our one common home. The myriad flora and fauna prevailing in a symbiotic co-existence is the essence of what a home really is. So, be it a nest on a tree or a den in a cave, a humble hut in a village or a glitzy apartment in a skyscraper in the midst of a bustling metropolis – they are all home to those who stay in them. For some it is a conscious gesture, for some it is instinctive – but irrespective of what drives them, what is common among every such inhabitant is that they all care for their respective homes. No creature, big or small, in this world is an exception to this fact.

Evolution has placed human beings at the top of the food-chain. This has not only given them a position of power in the animal kingdom but has bridled them with an enormous responsibility – that of taking care of their larger home, the world itself, and all those who dwell in it. Apparently, human beings are the only species blessed with evident

consciousness, and that fact alone transforms their responsibility to one another as well as towards all else into what is termed as commitment – because as a species they alone are aware and sentient of how important the preservation of the overall habitat is. Over time, humans have, through both faith and science, come to comprehend, to some extent, who and what they are. As both streams become more convergent by the day, reforms and advancements keep re-shaping human civilization through rapid developments at a pace which was quite unthinkable even a couple of decades back. Humans have started realizing that they can no longer seek to control, exploit or dominate nature, because it is nature which nourishes them and not the other way round. What they need to do instead is look after nature so that by doing so they can look after one another in turn. This is a primordial cycle – the very Cycle of Life which if broken or impaired will cause irreparable damage and push everyone and everything to the brink of annihilation. This tenet finds resonance if not amplification in one of The Universal Apostolic Preferences: Care For Our Common Home.

This Preference however cannot be fully understood in isolation. To grasp the deep significance of the words of this Preference, one needs to delve into the core Jesuit values propounded by the very founder of the Jesuit Order – St. Ignatius of Loyola:

- **Magis** - Meaning more. This is the challenge to strive for excellence. Within the ambit of this value, the work one does as a thought-leader is to be done with the aim of doing more for all members of what can be deemed as our common home.

- **Men and Women For Others** - Sharing gifts, pursuing justice, and having concern for the poor and marginalised. This value can help broaden one's understanding of cultural and global diversity and increase civic engagement resulting in greater harmony within the common home of ours.
- **Cura Personalis** - This means care for the individual person, thereby respecting each person as a child of God and all of God's creations. This value makes one realise that taking care of the entire person happens by caring for individual needs.
- **Unity of Heart, Mind, & Soul** - Developing the whole person and integrating all aspects of our lives. Though this, humans should aspire to find their true selves within themselves, as self discovery is the best path to greater good.
- **Ad Majorem Dei Gloriam** - This value translates into – For the Greater Glory of God which helps in paving the way to increase one's overall capacity to understand and accept.
- **Forming & Educating Agents of Change** - Teaching behaviours that reflect critical thought and responsible action on moral and ethical issues among others. This value speaks of education as a collective assimilation of experiences which increases knowledge and in turn creates awareness and growth, all of which is required for the preservation and propagation of our common home.

Moreover, it must be remembered that the Universal Apostolic Preferences give a horizon, a point of reference to the whole Society of Jesus as they capture our imaginations and stoke our wishes and in doing so, they unite us in the overarching Jesuit mission. In fact, The Preferences have been the fruit of a process of discernment lasting almost two years, wherein all Jesuits were invited to take part and concluding with a confirmation from Pope Francis in a special meeting with Father General Arturo Sosa.

The four Universal Apostolic Preferences are:

- **Showing the way to God** - This is a call to show the way to God through the spiritual exercises and discernment.
- **Walking with the Excluded** - This Preference is an instruction to walk with the poor, the outcasts of the world, those whose dignity has been violated, in a mission of reconciliation and justice.
- **Journeying with Youth** - This is a message to accompany young people in the creation of a hope-filled future,

because it is on their shoulders that the prospect of the world rests.

- **Caring for our Common Home** - This Preference is a beckoning to collaborate, with Gospel depth, for the protection and renewal of God's Creation, which is everything in totality.

Father General Arturo Sosa, SJ, on 19th February 2019 said, "With these Universal Apostolic Preferences, we resolve to concentrate and concretize our vital apostolic energies during the next ten years, 2019-2029. We accept them as a mission of the Church through Pope Francis, who has approved them by confirming the communal discernment that was undertaken by the apostolic body."

Creation today is crying out as never before, labouring to be set free...

(Romans 8)

At present, despite and due to the tremendous technological progress made by human beings, environmental crisis is at a breaking point. Among humans, the crisis is impacting the poor and vulnerable more than anyone else. Among others, it is affecting the environment and every other species of life on the planet that is part of the environment. Action is the need of the hour – contemplation and ideation alone will not pull back the endangered from the precipice of destruction. Whole nations and peoples need an ecological overhaul if humans are to be the true custodians of this wonderful planet we call Earth. This is a very important point in the history of humankind – a fulcrum on which the future of life as we know it is balanced.

Being at the helm of a great Jesuit institution like St. Xavier's Collegiate School, apart from being a privilege and an honour is a matter of great responsibility – a responsibility which translates into, among other things, upholding The Universal Apostolic Preferences for the decade 2019–2029.

If I am to focus on the fourth Principle – Care For Our Common Home, I would like to mention that it is well aligned to my educational background and my personal inclination as well. Green is something I associate myself well with. With the world of ours facing an ecological crisis, something mankind has acutely become aware of in the recent past, a mission to replenish the bounties of nature and restore the ecological balance is not simply required but is essential. Global Warming is no longer a phrase appearing in journals and dissertations – it is a reality whose effects are being felt by the world as a whole. Currently, we are faced with a litany of

calamities - deforestation, environmental degradation, atmospheric pollution, rapid erosion of mineral resources, extinction of entire species of life-forms... the list is seemingly endless.

A methodical and systematic approach to countering the environmental crisis is of prime importance at present. Bearing this in mind, I have made use of the available opportunities and taken the initiative of planting over 2,500 saplings and trees, every year for the past two years. As a direct fallout of the changing weather patterns and a change in the overall climate of the region, in the recent past, the state of West Bengal was lashed by two furious super-cyclones, Amphan and Yaas, within a space of a few months. This resulted in terrifying disasters which not only affected the ecology of the region but entire communities as well – both integral parts of our common home. To counter this, under the aegis of our great institution, we initiated distribution of dry food items. The persistence of a deadly pandemic and the ensuing lock downs only added to the plight of our common home. To mitigate the situation, we were blessed enough to be able to rise up to the challenge through the organization of numerous Covid-19 Vaccination Camps at every opportune moment.

Through the aforementioned plantation drives we were able to cover regions in the Sunderbans area as well as in the South 24 Paraganas, viz. Baruipur and Kalyanpur, along with Chamrusai in West Midnapore. The trees donated and planted comprised timber as well flower and fruits bearing ones.

In the Sunderbans-Basanti-Jharkhali areas where the effect of cyclone Yaas was very widespread, St. Xavier's Collegiate

School in association with The Forestry Department, Govt. of West Bengal and in keeping with the commemoration of the Van Mahotsav Day – planted approximately 1,200 trees in the vicinity of Herobhanga Vidyasagar Vidya Mandir, Tridib Nagar Janakalyan High School and Sunderbans High School.

In a development related to environmental alleviation, St. Xavier's Collegiate School took a pioneering step, guided by The Universal Apostolic Preference of Caring for Our Common Home, in association with the organization Give Back to Earth, to start composting as a method of viable waste disposal, thus becoming one of the very first schools in the city to adopt scientific waste segregation and treatment methods. Besides this the school is also working tirelessly to adopt carbon-free and green-friendly practices in its everyday functioning.

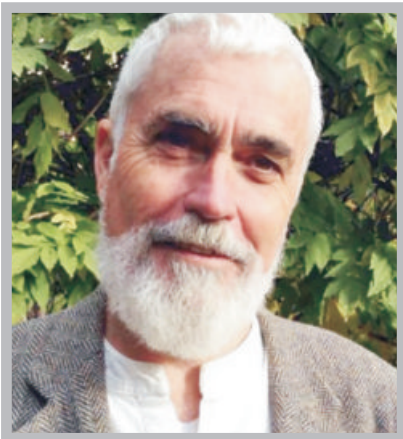
Since the dawn of civilization, humankind has gone from fearing nature to arrogantly trying to conquer it, only to fail miserably. From this failure has been born the realisation that in order to survive, the bionetwork consisting of all the diverse flora and fauna need protection, conservation and restoration. The Principle – Care For Our Common Home is a simple yet very powerful statement in this regard, one that requires honest understanding and earnest implementation.

In hope of a future in which we all learn to live in perfect co-existence with Nature, let us all reiterate the fundamental values of the Jesuit Order and solemnly vow to uphold the sacrosanct Universal Preferences.

Ad Majorem Dei Gloriam...

Nihil Ultra...





UAP 4: Care for the Common Home

Rev. Dr. Pedro Walpole, SJ

Director for Research, Environmental Science for Social Change (ESSC), Philippines
Coordinator of Reconciliation with Creation for the Jesuit Conference of Asia Pacific (JCAP) and Coordinator for Ecojesuit Global

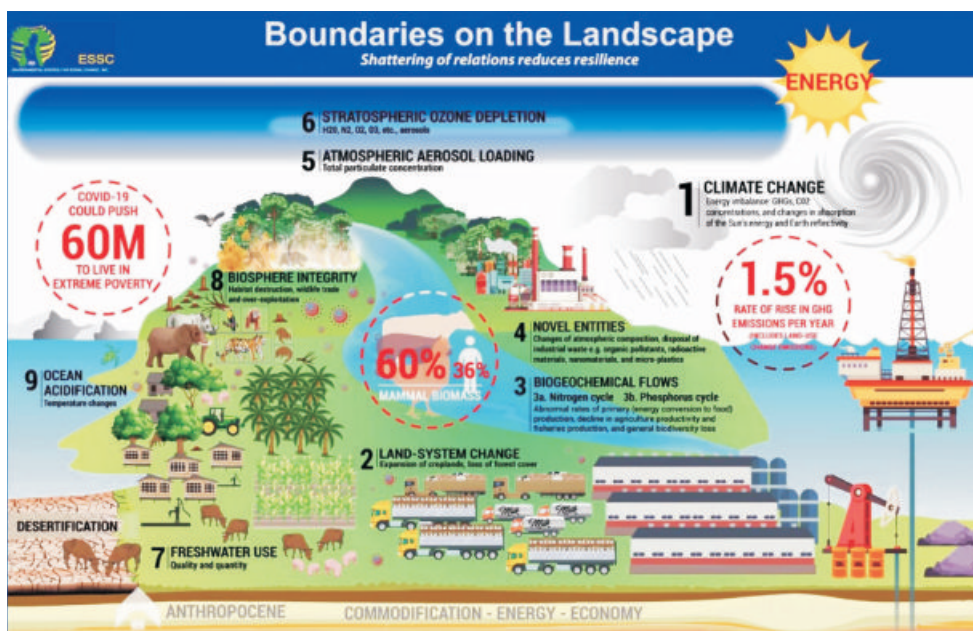
We are facing one crisis today which is integral to ecology: how we live and the conditions of people around the world. This is what *Laudato Si'* is saying to us. With this understanding, we look at areas of knowledge and then we listen to the voices that are not always included: the voices of women, the rural and the indigenous. We need to support their needs and concerns. We need to look at the challenges of the generation and encourage the youth to carry the hope, and to live this out in relation to reality and care for all.

The 6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) highlights the increasing changes in the environment and its unprecedented effects. In this, the poor are the most vulnerable.

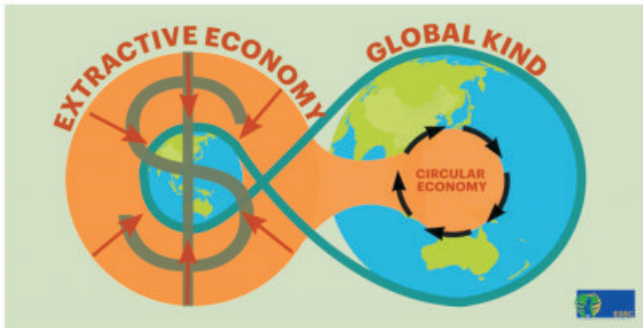
We are seeing the impacts at the extreme level in terms of extreme weather events, and detrimental effects on the oceans, in which the poor are experiencing the crisis to an extreme extent. We are approaching the tipping points, and we are not sure at this stage how to continue in this incremental direction, and how to turn this around and make corrections. Climate change is ratcheting up an impact on the planetary boundaries.

Boundaries on the Landscape

- We are aware about climate change and how global temperatures are increasing at 1.5% per year.
 - Biogeochemical flows: high levels of nitrogen and phosphate are changing our water systems. In the Philippines, most upland villages have lost their water supply.
 - We have an atmospheric lead that has led to the depletion of the ozone layer.
 - Food insecurity is a growing issue.
- * We are introducing herbicides such as glyphosate – a known carcinogen - into agricultural practices.

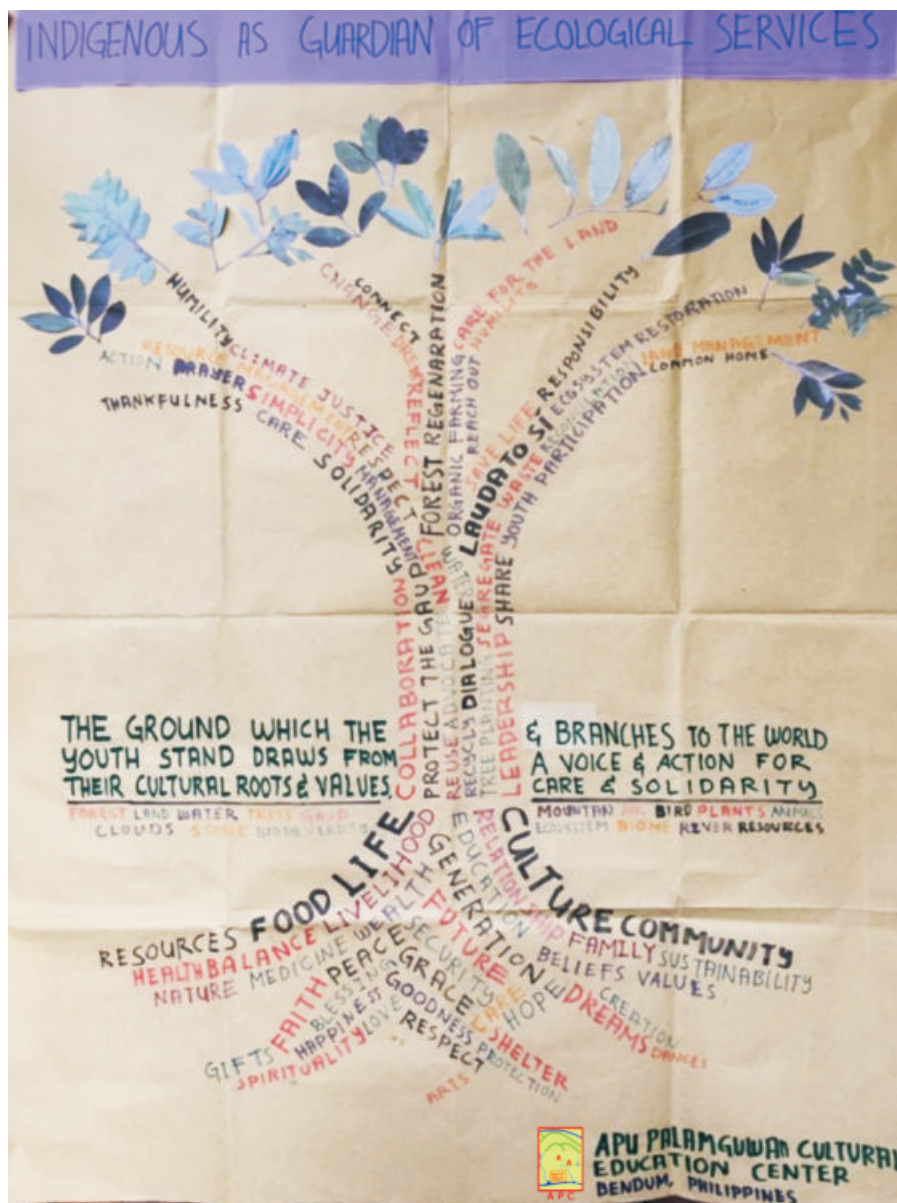


THE INNER AND OUTER STRUGGLE OF OIKOS: ECONOMY & ECOLOGY



Transformation needed to live in the same local and global household:
Right-connecting, reconciling, kindness, compassion and mercy to all

- * Farmers continue to suffer due to an unjust economy. In India, farmers protested for a year due to unjust agricultural laws. In the Philippines, farmers only receive 5% of the profits with the rest going to financiers and traders.
- * Corporate agriculture is also contributing to GHG emissions. The land is being degraded which is affecting the nutrition of people.
- Biodiversity integrity is being compromised.
- These boundaries are what the youth are learning about and how to turn such knowledge into action that cares for all.



- We have one household and the extractive economy has taken over. We need to ease this so the natural environment encompasses economy, and we don't go beyond our global capacity. We need a circular economy for the common good, where ecology and economy are balanced.

We need to heal ourselves first by learning to trust, and we find this as we begin to trust God. Even if we want to take action, we need to know who we are in this world and how we come about in God's love. God is asking us to participate in the process and take responsibility; we need courage and confidence as we reflect on His unconditional love. God speaks to us through the little moments in life that we need to savor and value.

Many people are living in vulnerable contexts. How do we understand suffering? How do we go through moments of suffering? We are loved and we care for others.

- For the Pulangiyen youth in Northern Mindanao, Philippines, the ground they stand on is grounded on their values, and their branches reach out to the world with voices of change & solidarity.
- We need to express ourselves through art and scientific composition in

understanding the rationale and logic of what we are going through.

- We need to understand where to draw gratitude and a sense of belonging from, in which we look for ways to be part of the community. Then, compassion can grow and our actions can be of healing and not success.

How Jesuit institutions can advocate for climate justice

From a regional perspective, we identify the challenges, the threats, risks, and their interrelation. This is a learning and sharing exercise that the students may be able to engage in. An important effort is to share the stories of people in the margins as their voices are not heard. We need to give them a place to participate in society and include them in social dialogues. We need to celebrate our failures and the fact that we can come together to learn from them. This allows us to

continue with open hearts. We need to highlight agroecology more by lifting up the local practices.

After COP26, Fr. Sosa tells us to “do what we must”. This is where we can understand the failures in COP. We have to look at where we can engage to follow-through on COP: the stories of what is happening, and the people who can connect with society. The six Jesuit conferences are beginning to build their agendas. Greater concern is emerging for the oceans, lobbying for action within society, and food security.

Laudato Si’ played a significant role in COP21; Laudato Si’ will also have a role in COP27. COP26 did not alleviate the situation of the poor, but we come together to learn from the limitations, to change what we can, and call for change. We do not give up; God does not give up on us and we do not give up in the face of struggle. We must allow the voice of the youth, women, and the people in the margins to be heard. We need to enable them to participate, contribute, and be part of society. We are at a time of great challenge and yet great hope.





Good Planets are Hard to Find

Dr. Panchali Sen

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Taking care of our common home is an idea that, for our world, is no longer an issue of tomorrow but an issue of today. It is such an important idea because humans are the reason the environment is in a decline. So it is our responsibility to fix what we started. Pope Francis thinks that taking care of our common home should be a corporal work of mercy. Mother Teresa wanted us to stop wasting precious environmental goods, to stop contributing to the wasteful activities that will lead to earth becoming a grey wasteland.

When greenhouse gases accumulate in extraordinary levels, the amount of heat trapped in our atmosphere increases as well. This warming of the planet, termed global warming, has disastrous effects, ranging from the melting of polar ice caps to the extinction of many wildlife species. Our responsibility for this global issue, as well as our duty to fix it, is immense. Thus, the need to heed to Pope Francis' call to "protect our common home" must not be taken lightly, or we run the risk of losing our planet forever.

Nature is suffering. Oceans filling with plastic and turning more acidic. Extreme heat, wildfires and floods, as well as record-breaking Atlantic hurricanes have affected millions of people. Even these days, we are still facing COVID-19, a worldwide health pandemic linked to the health of our ecosystem. Ecosystems support all life on Earth. The healthier our ecosystems are, the healthier the planet and its people.

Climate change, man-made changes to nature as well as crimes that disrupt biodiversity, such as deforestation, land-use change, intensified agriculture and livestock production or the growing illegal wildlife trade, can accelerate the speed of destruction of the planet. Restoring our damaged ecosystems will help to end poverty, combat climate change

and prevent mass extinction. But we will only succeed if everyone plays a part.

'ActNow' is the United Nations' global call to individual actions. Even a small step can help address climate change and accelerate the implementation of the Paris Agreement(2015). People from around the world have already taken more than 2 million climate actions.

At the launch of the report by the Intergovernmental Panel on Climate Change (IPCC), on the mitigation of climate change, the UN Secretary-General called for an urgent shift of investments and subsidies from fossil fuels to renewable energy, warning that investing in new fossil fuels infrastructure is "moral and economic madness." The report sets out viable, financially sound options in every sector that can keep the possibility of limiting warming to 1.5 degrees alive.

So far, high-emitting governments and corporations are not just turning a blind eye; they are adding fuel to the flames by continuing to invest in climate-choking industries. Scientists warn that we are already perilously close to tipping points that could lead to cascading and irreversible climate effects.

The latest IPCC report arrives in a period of extraordinary global political and economic turbulence that has further jeopardized efforts to address climate change. Energy prices spiked following Russia's invasion of Ukraine, prompting several nations to increase fossil-fuel production. In the long run, that will only make matters worse. Leaders who claim to be protecting their people by doubling down on fossil fuels are doing the exact opposite: throwing their people to the wolves of energy insecurity, price volatility and climate chaos. The IPCC report lays out a saner, safer approach, one that will

get the world back on track by using renewable solutions that provide green jobs, energy security and greater price stability. This report is a blueprint to bring us back to the 1.5-degree pledge that nearly 200 nations made in Paris and renewed at the COP26 (2021) gathering in Glasgow, Scotland.

All of us have a role to play in the shift to green energy. Young people, civil society and indigenous communities are among those who have already stepped up, sounding the alarm and holding leaders accountable. We now need to build on their work to create a worldwide grass-roots movement that no one can ignore. I hereby appeal directly to everyone with an interest in our planet and our future: Make your voice heard, wherever decisions are taken — in political debates, local authorities, boardrooms and at the ballot box. Demand an end to coal-fired power. Call for renewable energy to be deployed rapidly and widely.

Promises to phase out coal must be backed up by comprehensive plans, without exceptions or loopholes, and with action. The decisions governments make today will determine the future of achieving the 1.5-degree limit. A shift to renewables will mend our broken global energy mix and offer hope to millions of people already suffering from the impact of climate change. Climate promises and plans must be turned into reality and action, now. It is time to stop burning our planet, and start investing in the abundant renewable energy all around us.

Jesuit educational institutions across the globe have been discussing and reflecting on the importance of forming students who understand that being persons for and with others today also means embracing the care of our common home as a fundamental dimension of our humanity. Aligned with this Jesuit mission of reconciliation and justice in Christ's command to love one another, this framework encourages us to examine our individual and collective actions and habits through key reflective questions and suggest practical actions that we can take to heal our earth.

"To be drugged by the comforts of privilege is to become contributors to injustice as silent beneficiaries of the fruits of injustice." Fr. Pedro Arrupe

Although an ecological understanding is necessary and action is required, a need to reflect constantly on how our lifestyle

decisions, small or large, affect the earth and the poorest peoples of the Earth is equally important. More so, an awareness of the gravity of today's cultural and ecological crisis must be translated into new habits. Many people know that our current progress and the mere amassing of things and pleasures are not enough to give meaning and joy to the human heart, yet they feel unable to give up what the market sets before them.

While we have always purchased goods, material and other, our culture of purchasing has shifted. Today, we live in a consumerist society where much of what we buy is not driven by need but desire. This has changed from a time when we used to purchase goods based on their value and benefit. Our culture of consumerism has consequences. Scientists can now measure the impact the household consumption of goods has on the environment. These goods include the food we eat, the clothes we wear, and other items we use daily.

Pope Francis entreates us to listen to the groans of the earth and refers us to Pope John Paul II's first encyclical, which called for a "global ecological conversion" and the need to "safeguard the moral conditions for an authentic human ecology." Laudato Si appeals to Christians and non-believers alike to cooperate with each other, calling "...for a new dialogue about how we are shaping the future of our planet. We require a new and universal solidarity. As the bishops of Southern Africa have stated : 'Everyone's talents and involvement are needed to redress the damage caused by human abuse of God's creation.'

The educators among us are challenged to inspire and empower our students with the vision and skills to design a future worth inheriting. To do this, I believe we can draw inspiration from the life of the Pope's own namesake, guide, and inspiration, St. Francis, who he acknowledges as "...the patron saint of all who study and work in the area of ecology...St. Francis is the example par excellence of care for the vulnerable and of an integral ecology lived out joyfully and authentically...He shows us just how inseparable the bond is between concern for nature, justice for the poor, commitment to society, and interior peace.



Environmental Education to Ensure our Better Future

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Environmental education is multidimensional and multidisciplinary academic field which deals with every issue that affects an organism. It involves exchange of information from various disciplines that is essential to build positive attributes and skills, towards building a better and positive environment.

According to Environment Protection Act (EPA, 1986):

"Environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions."

Environmental education provides a holistic development of the learner and provides them ample number of opportunities to give simple solutions to the problems by using the learned principles that have been acquired in real life. The environmental conditions are changing rapidly. Therefore, the young learners need to be provided with upgraded information, that would make them acquainted with the present-day scenario and also understand the emerging global environmental problems.

Present environmental condition

Climate change, increase in average global temperature, melting of glaciers, increase in sea-level, increase in weather extremes, ozone layer depletion, deforestation, waste disposal, ecosystem degradation and rapid loss of biodiversity are some of the major environmental challenges before mankind. Sharp population increase, poverty, lack of awareness and the resulting

deterioration of natural habitats are the major obstacles in the path of sustainable development.

Global climate change causes erratic rainfall patterns which in turn leads to frequent occurrence of floods and droughts in different parts of the world. A portion of world's population are still dependent on non-renewable sources of energy. Overexploitation of environment and imbalance in the environment is blocking the transition towards a sustainable environment. Different kinds of strategies should be utilized to propagate the concept of sustainability and improve the present environmental condition. It is high time that we human beings start thinking about eco-friendly solutions and understand our responsibility towards environment.

The UN Decade (2021 – 2030) on Ecosystem Restoration was launched on 5th June 2021 aiming at the recovery of ecosystems that have been degraded or destroyed by activities like pollution and deforestation and conservation of the ecosystems which are fragile or still intact.

Role of environmental education in making dutiful citizens

Environmental education is a great way to get students out of the classroom and into hands-on activities. Environmental education is definitely the key to a better future. It fosters skills such as enquiring, exploring, finding concerns, analyzing, interpreting, reasoning, generating conclusions, and solving problems, all of which are important for shaping tomorrow's world. Environmental education focuses on cooperative learning, critical thinking, conversation, and gives emphasis on action plans with real-world applications. Both formal and informal environmental education helps to bridge the gap between the knowledge gained from their curriculum and solve the real-life problems with their gathered knowledge.

Some of the basic components of environmental education depends on developing consciousness and responsiveness towards the environmental challenges, comprehending and understanding the situation, developing a perspective or point of view about environmental concerns and stimulate the motivation to ameliorate or nurture environmental quality, expertise to identify and help settle environmental issues, involvement in activities that help in understanding of environmental challenges.

Environmental Education plays a pivotal role in achieving

environmental consciousness and sensitization. Educating people about the environment will make them coherent with the reality of the present-day situation. It is important to make them aware about the environmental laws, rights and duties. Sustainable development of the environment can be induced by accommodating the concepts in the curriculum. People should be aware of the socio-ecological difficulties and use their pedagogical knowledge in solving the problems. Knowledge of the environment and the contemporary environmental issues enables the youth to identify their responsibilities towards nature as global citizen and make positive changes for the planet with efficient usage of existing resources.

Education for sustainable development

Environmental education teaches students how their actions and decisions affect the environment, as well as the knowledge and skills needed to solve environmental challenges and the steps that may be taken to protect the environment and make it stronger and more sustainable in the future.

"The earth is the Lord's and all that is in it, the world, and those who live in it; for he has founded it on the seas and established it on the rivers" (Psalms 24:1–2). The notion of God as creator is rooted in their experiences and wondering in daily life, and it links to the expectation of God's gracious intervention with its promise of a future with hope (Jeremiah 29:11).

According to this faith, all creation and every being possess an inherent value; the gifts of creation cannot be reduced to tools for humans and their desire to conquer and consume. Admittedly, humankind is, according to the narrative of creation, unique within creation, only men and women are created in the image of God (Genesis 1:27).

The achievement of sustainable development can be achieved by thinking about the future generations and conserving resources for the same. The three-step protocol of see-judge-act is generally a dominant part in achieving sustainability.

The first step is to see. It refers to analyzing the entire situation, and using the knowledge from different fields of education in meticulous analysis of the challenge. The SDGs depends on perception and understanding from a worldwide viewpoint.

The second step is to judge. The visual information from the first step should be used in analyzing or judging the situations. Understanding of the severity of the situation can be attributed by judging the entire scenario.

The third is to act. The knowledge of understanding the challenges and providing justice to it can be achieved by taking the step towards the right direction. Both comprehension from the above steps and the ponderance about the second step contributes towards attributing correct justice in achievement of sustainable development goals.

Role of Jesuits in Global Environmental Education

The present-day youth should work as an active participant in society as dutiful citizens, performing managerial activity, so the aim of our Institution is to reach out to them and tap their volunteer energy in spreading environmental awareness and initiate necessary steps for environmental restoration. Environmental education teaches the young brains about some of the contemporary difficulties that may have an impact on the environment. This allows these young people to contribute to global efforts to protect the environment.

Pope Francis addressed the UN General Assembly at the adoption of the SDGs at the UN in 2015. He emphasized on vital role of environmental protection and social inclusion in eradicating poverty and extending dignity.

One of the components of Universal Apostolic Preferences includes “Caring for Our Common Home” that takes into consideration the environmental crisis all across the world. Through its Gospel teachings and Catholic social teachings, it gives an outline about caring for our common home i.e., Mother Earth, both locally and globally. It urges people to take responsibility of the environment and ensure that there is use of eco-friendly products. Resources like energy and water are preserved and also highlights the importance of recycling the products. They request the people to support all agendas essential for the betterment of the environment.

In promoting the global environment education, the academic literature should be designed in a way that would be encouraging enough in modifying the institution into places where students and community members would develop a foresight for acknowledging the importance of living in a sustainable environment and ensuring the prevalence of the same. In order to accomplish this objective, the contents of the subject matter must be oriented accordingly. This will refurbish the minds of the youth, thereby motivating them to progressively think about the concepts, imbibe them and execute it in their work fields.

The concept of environmental sustainability must be amalgamated across all disciplines and made a part of the core syllabus for all students. The different fields of arts, humanities, science, commerce, ethics, religion all have responsibility in maintaining valid environmental services. Jesuit institutions, usually would impart students the knowledge of realizing about one’s own self, help them

acquire values, which in long run would help them in acquiring livelihood. The Jesuit institutions instill the value of responsiveness amongst the students, and streamline their views and thought process in specific manner rather than abstraction.

The aim of the institution is to inculcate amongst the students the concept of reality and emphasize upon any kind of intellectual enquiry, giving them a deeper understanding about the complexities of environment, followed by future. Our institution helps the students to develop skills and ideas, in order to face their future with aspirations and commitment.

Our institution motivates the students to get involved in the wider world, and



Fig: Components of Universal Apostolic Preferences
Source: ECOJESUIT (<https://www.ecojesuit.com/what-do-ignatian-universal-apostolic-preferences-have-to-do-with-the-un-sustainable-development-goals-2/>)

provide assistance to the people in need. Contemplate themselves as a part of God's mission, and dedicate their life in serving the people. This same sense of responsibility can be inculcated within a student by educating them about maintaining the conditions of sustainable development in all spheres of life.

Conclusion

Environmental education helps the young learners to think about their association with the environment and develop skills that are eco-friendly skills. It develops the knowledge, skills and proficiency amongst the learners to cater towards the environmental needs, become conscious about the challenges of the environment and act responsibly. It is also necessary to motivate people to work together and make the environment a better place to live in. This education equips the youths to navigate through the rapidly differentiating environment with the appropriate knowledge of self-reliance, reasoning and preservation. Therefore, environmental education is mandatory for a better future as it empowers learners by enabling them to participate in a sustainable future.

References

- a) <https://actalliance.org/act-news/the-earth-is-the-lords-reflections-on-the-un-climate-change-conference-cop26-blog/>
- b) [http://sdgbook.com/the-sustainable-development-goals-in-the-perspective-of-christian-faith-and-theology/#:~:text=The%20notion%20of%20God%20as,\(Jeremiah%2029%3A11\).&text=This%20implies%2C%20however%2C%20a%20unique,is%20right%2C%20good%20and%20true.](http://sdgbook.com/the-sustainable-development-goals-in-the-perspective-of-christian-faith-and-theology/#:~:text=The%20notion%20of%20God%20as,(Jeremiah%2029%3A11).&text=This%20implies%2C%20however%2C%20a%20unique,is%20right%2C%20good%20and%20true.)
- c) ECOJESUIT(<https://www.ecojesuit.com/what-do-ignatian-universal-apostolic-preferences-have-to-do-with-the-un-sustainable-development-goals-2/>)
- d) <https://www.epa.gov/education/what-environmental-education>
- e) <https://www.iucn.org/theme/nature-based-solutions/initiatives/decade-ecosystem-restoration#:~:text=The%20United%20Nations%20Decade%20on,chance%20at%20a%20healthier%20future.>
- f) <https://www.jesuits.global/uap/caring-for-our-common-home/>
- g) <https://www.scu.edu/ic/media--publications/universal-apostolic-preferences/>
- h) <https://www.xavier.edu/jesuitresource/resources-by-theme/resources-for-apostolic-preferences>
- i) <http://www.hazaribagjesuits.org/universal.html>
- j) <https://www.cgdev.org/blog/pope-francis-climate-change-hurts-poor-most>





Health and Environment: Twins and Treasure-House of all Prosperity

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"The happiness of human life is in the joyful nature in which they live". Health is the key to all the three international initiatives – the Sustainable Development Goals (SDGs), the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), and the Sendai Framework for Disaster Risk Reduction. The Covid-19 pandemic highlights the centrality of effective public health and the health care systems and the importance of the environment and its components- air, water, land, and biosphere. The key environmental factors affecting our health are air quality, hazardous chemicals, climate change and disasters, microbial diseases, poor quality of water, lack of access to health care, infrastructural issues, and other global issues.

Major pollutants in outdoor air from industries, forest fires, garbage burning, and vehicular emissions, like particulate matters (PM), ozone (O₃), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and Lead (Pb) are related to chronic diseases such as chronic obstructive pulmonary disease (COPD) and asthma. It aggravates cardio-cerebral vascular disease, ischemic heart disease and adversely affects the nervous system, digestive system, and urinary system. Particulates such as nano-sized ones can easily pass through the blood-brain barrier and are translocated to the CNS inducing inflammation, increasing the possibility for stroke, Parkinson's disease, and neurodevelopmental ailments. Mold spores and pollen grains are often connected to asthma and allergies. WHO reported 29% of deaths from pulmonary diseases, 24% of deaths from stroke, and 17% deaths from acute lower respiratory infections. Choice of transportation has manifold impacts on health like traffic-related injuries, physical inactivity, air

pollution, noise, and other issues, causing 185,000–330,000 premature deaths annually worldwide. The key indoor source is the burning of solid fuel, tobacco smoking, release from construction sites and materials, and poor ventilation. Air pollutants like formaldehyde and benzene from indoors are reported to induce leukemia. Pollen exposure can trigger various allergic reactions, including allergic rhinitis, allergic conjunctivitis, etc.

The environmental impacts of climate change are broadly apparent. Climate change is changing the mean and variability of weather variables and sea-level rise, shifting many regions into new climate regimes. The Intergovernmental Panel on Climate Change concluded in 2019 that the atmospheric temperature of the mean land surface was 1.53°C more in 2006 - 2015 than it was in 1850-1900. There was substantial inconsistency in regional warming, the Arctic, western Africa, South America, and Eastern Europe being the hotspots. The allied warming boosts the frequency, intensity, and duration of some weather and climatic events, such as heat waves, heavy rainfall, and droughts in some regions. Further, as observed after recent cyclones and hurricanes, these events often disrupted critical public health, health care systems, water and sanitation, and food distribution systems and adversely influence the health of the affected populations. Many hospitals and other facilities are situated along the shore and river banks, are subject to flooding and storm surges. Climate change and climate variability are a threat to food security by affecting agricultural patterns, loss of biodiversity, fisheries, land degradation, socio-demography, and economy. Climate change exerts major impacts on crop yield, pests and vectors, food supply and its prices, poverty eradication, and achieving

the SDGs. Climate change is presumed to cause an additional death of around 2.5 lakh from malnutrition, malaria, dengue, diarrhea, and heat stress between 2030 and 2050.

Carbon dioxide, the main greenhouse gas driver of climate change causes ocean acidification and reduces the nutritional quality of major cereal crops by decreasing concentrations of protein, micronutrients, and B vitamins. Capping temperature rise to 1.5°C in contrast to 2°C is estimated to produce a less significant net decrease in the harvest of maize, rice, wheat, and other cereal crops, predominantly in sub-Saharan Africa, Southeast Asia, and Central and South American regions. Daily, seasonal, or annual climate variability can often produce vector/pathogen to adapt and shift or expand their geographic ranges. Such a shift can modify disease prevalence that depends on the vector-host interface, host immune response, and evolution of pathogens. North America is presently at menace from copious vector-borne diseases, like Lyme, dengue fever, Zika virus, West Nile virus, chikungunya, yellow fever, disease, Rocky Mountain spotted fever, plague, and tularemia. Vector-borne pathogens that are not presently found in the USA, such as chikungunya, Chagas disease, and Rift Valley fever viruses can be a risk soon. The average increase in mosquito abundance is projected to be 8.2 percent per 1°C warming over this century. Dengue incidence increased 30 times during the past fifty years to approximately 390 million infections annually. During the past 110 years, the global abundance of *A. aegypti* increased about 9.5 percent, with the largest increase (8.2 percent) over the past two decades in response to rapid warming. Poleward shifts of *A. aegypti* are expected by the end of the century.

Chemicals a key to economic development managed improperly can pose major health risks and disorders like allergies, cancer, cardiac, pulmonary, neurological, congenital, urinary, and reproductive ailments. Different chemicals affect human health in various ways, hence chemical safety is of utmost importance. WHO has accounted for over 1.5 million deaths in 2016 to exposure to selected chemicals. With increasing dependency on plastics toxic additives like BPA, plasticizers, flame retardants that are often added to plastic to improve its properties get released in the environment under various atmospheric conditions. In 2018, the WHO reported the presence of microplastics in 90% of the tested bottled water (only 17 free out of 259 tested). According to the Global Apparel Fiber Consumption, out of 1 lakh, kg of fibers of annual global consumption worldwide around seventy percent are synthetic. Synthetic fibers such as

polyesters, acrylics, rayon, and nylons are derivatives of petroleum and are a sort of plastic. Skin being the largest most permeable up to sixty percent of the substances can be absorbed in direct contact. Synthetic fabrics suffocate the skin, traps odors facilitating bacterial growth.

Microbes existing in the soil, air, and water also pose problems. Trillions of microorganisms exist in the human body of which many of these perform important biological functions while others are pathogens. A common route of entry often can be through contaminated food, and water.

The number of people afflicted by hunger worldwide amplified from 797 million in 2016 to over 821 million in 2018 (1 of every 9 people on earth). If we include people affected by moderate levels of food insecurity then over 2 billion people do not have normal access to safe nutrition. Such situations aggravate the nutritional deficiency syndromes. It was reported in March 2018 that globally 5 billion people live without waste collection or controlled waste disposal. Annually around 9 million people die each year.

WHO statistics says that more than 50% global population lack safely managed sanitation services, nearly 785 million people do not get basic drinking-water services, approximately 2 billion population reside in nations with towering levels of water stress, by 2025, 50% of the global population will live in a water-stress, almost all rivers in Asia, Latin America, and Africa have worsened with 80% wastewater returning to the ecosystem without treatment. Diarrhea and dysentery are chief public health issues in developing countries together with salmonellosis and campylobacteriosis. The greatest health problems will persist in populations where exposure and susceptibility are high and in countries but have contributed the least greenhouse gas emissions.

Limited or lack of access to health care services is associated with poor health outcomes that may be due to ignorance and illiteracy, location in the remotest areas, transportation facilities to clinical centers, economic instability, etc. Infrastructural facilities like roadways, potable water supply, and health care centers and hospitals are important determinants of good health. A very small proportion of the working population has access to occupational health services and conditions are worse in developing countries. Poor working conditions result in occupational deaths and turn economic losses. Socioeconomic inequalities in respect to education, employment, and income, also pose an unequal environmental risk. This in turn contributes to health

inequalities and puts the underprivileged at even higher risks. As discussed earlier, poor housing conditions lead to respiratory, cardiovascular, and nervous diseases. Urban sprawls and urban slums with degraded environmental conditions of air water and noise coupled with heavy traffic and lack of open and green spaces certainly aggravate this matter.

The environment is certainly a significant determinant of health and accounts for a considerable proportion of deaths annually. Maintaining a healthy environment and optimizing environmental health is imperative to assist people with a

long and quality life. Nearly 23% of mortality is due to preventable environmental health problems. Chemical risk assessment involves scientists and clinicians to determine a chemical's total biological effects. Regular health impact assessment and continuous environmental monitoring could provide the decision-makers with the correct information for framing sound policies and effective programs. This cooperation among different sectors (both governmental and non-governmental), and high-level political commitments are keys to tackling health issues and ensuring better health conditions.

**“Together, we pledge our
commitment to raising
awareness about the
stewardship of creation.”**

- Pope Francis





Care for Our Common Home

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Everyone in this world should come together with the profound knowledge of the gospel for the nourishment, protection and recreation of God's blessing on us. The idea that the world is our home was instilled in me during my tenure as a student under the tutelage of prominent Jesuit fathers at St. Xavier's College, Kolkata. I am sincerely indebted to God for allowing me to

acquire my Jesuit education at Saint Xavier's College. It is in this institution that I first realized that one should not stay idle and inactive since, with the opportunities and knowledge provided to us, the world can become our cloister! This concept broadened my understanding of the world and its nuanced dynamics and helped me to view strangers as capable individuals who by functioning collectively as a family could bring about wonders. These ideas also culminated in a progressive attitude which helped me to break down the barriers and the boundaries of race,

colour, caste and creed. This change in one's attitude was possible only due to the teachings of the Jesuit fathers, which were unique as they taught us to embrace everyone in this world.

Therefore, in this endeavour, one should always remember that God has blessed us with mother nature, and it is our responsibility to take care of and nourish our home.

In St Xavier's College, Kolkata, the Jesuit fathers have faithfully followed the teachings of the Son of God and imbibed among the pupils a keen sense of love and responsibility for fellow human beings, the ecology and the environment. The Jesuit teachings have aided me to not worry about adversities, or perceive life as a problem to be solved, instead, the world should be considered a joyful mystery to be contemplated with gladness and prayers.

Negativity and hopelessness do not produce anything tangible or positively constructive as we are continuously burdened with the news of rapid deforestation, unplanned urbanisation in the world, and political leaders clamouring about climate change. Rather than being in despair, holy

fathers have taught us to be passionate for our home, and be increasingly sensitive about our planet. Our objective to attain a peaceful, sustainable and bountiful world should involve a vision that helps us to perceive and understand to live our lives embodying simplicity, overcoming our passions for the materialistic world and learning to love nature and nurture it with care.

By following this contemplation, we can all live more harmoniously with nature. The vision of the world which propagates peaceful coexistence of all elements can be achieved by our loyalty to God, the creator. This harmony can be achieved through the synchronisation of Jesuit teachings and our actions combined with our prayers. We should all remember that the world is not an ancestral property that gives us the right to plunder it. Rather we should consider it as a gift of God which we should love and nurture for our future generations. It is a jewel that has been given by God to be taken care of by us. Our world should aim for sustainability so that not only humans but even a sparrow should be able to create a nest for itself with the blessings of God on our world, our home.

It is this humble attitude that will help us to live more sustainably, awaken resources and will help us to motivate ourselves to come out of the stupor and see the world with a changed vision.

To sustain ourselves and the future generations to come, we cannot let the evils of modern

civilization turn our beautiful home into an illusion. We should take care of the world as modern citizens. The Jesuit teachings always propagate that all creation is to be cherished and helps an individual to transcend oneself beyond the evils which lurk everywhere so that one can help others, and preserve the home that God created. I believe that one can live with this new hope by adopting the vision of Jesus, and creating an ecosystem where all human beings can live together by caring for each other and the home that they inhabit.



Taking Care of our Mother Earth

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To begin with the beautiful words of Pope Francis who tells us "There is a nobility in the duty to care for creation through little daily actions, and it is wonderful how education can bring about real changes in lifestyle." Indeed, it is through education we come to know our beautiful planet; Earth is 4.543 billion years old. Arguably, it is the only planet which has thriving life. Scientists around the world claim that the Earth has moulded itself, such that different living species can thrive on it and hence aptly it is called as our Mother Earth. It is the only planet with the continuity of life so it becomes more and more important to generate a sense of urgency of saving our Mother Earth from all sorts of planet harming activities. It needs to be saved as our survival depends completely on this planet. It is also our responsibility to raise awareness about taking care of our Mother Earth.

Before 500 A.D., man had a good relationship with our Mother Earth. But since humans developed cities and industries, the modern lifestyle has changed everything. Man has been using and misusing natural resources up to the limit. Now we are tearing up remote corners of the planet looking for crude oil and coal, and our forests and wild animals are disappearing. Our environment is totally polluted: we drink polluted water, inhale air full of dust, and eat food with traces of pesticides and other toxic chemicals. Hence, we are suffering from diseases. In order to properly see ourselves in relation to the Earth, we need to step back and look at our culture from the outside. For instance, we perceive the manner in which we live in a consumerist and rushed society; one that is overtly indulgent and self-focused. Our houses have grown larger (the average house doubled in size since the 1970s) as our families have shrunk in size. The more space we have, the greater tendency we have to buy more stuff to

fill it – stuff that accumulates, needs to be managed, cleaned, organized, and then disposed of when we no longer find pleasure in it. We consume twice as much as we did 50 years ago.

Creation today is crying out as never before, labouring to be set free. Today's environmental crisis is impacting in a particular way on the poor and vulnerable. The harm inflicted on the Earth also hurts the most vulnerable people of our world. These include indigenous people, peasant farmers who are forced to immigrate, and those who live on the outskirts of large conurbations. The environmental destruction that the dominant economic system causes is harming whole generations of people: it affects not only Earth's current inhabitants, especially the very young, but also predetermines and jeopardizes the life of generations to come. While some things are up for debate, many are not. We can clearly see with our own eyes many of the negative effects that human activities have on creation, like factories with hazardous smoke stacks and corporations that dump chemical waste into rivers. And although there is disagreement among scientists about climate change and humankind's impact on it, the majority clearly sees a strong correlation. There is great consensus that many negative effects have been had on our air, our atmosphere, our oceans, our freshwater and our land. Action is needed urgently by Christians and by all people of good will. Nation and people need an ecological conversion if we are to be honest custodians of this wonderful planet.

We are reminded of Saint Francis of Assisi who tells us that our common home is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. This sister now cries out to us because of the harm we have

inflicted on her. This is why the Earth herself, burdened and laid waste, is among the most abandoned and maltreated of our poor; she “groans in travail” (Rom 8:22). We have forgotten that we ourselves are dust of the Earth (Gen 2:7); our very bodies are made up of her elements, we breathe her air and we receive life and refreshment from her waters. In 1971, Pope Paul VI referred to the ecological concern as “a tragic consequence” of unchecked human activity: “Due to an ill-considered exploitation of nature, humanity runs the risk of destroying it and becoming in turn a victim of this degradation”. He stressed “the urgent need for a radical change in the conduct of humanity...”

Saint John Paul II warned that human beings frequently seem “to see no other meaning in their natural environment than what serves for immediate use and consumption”. Subsequently, he called for a global ecological conversion. He noted that little effort had been made to “safeguard the moral conditions for an authentic human ecology”. Every effort to protect and improve our world entails profound changes in “lifestyles, models of production and consumption, and the established structures of power which today governs societies”.

Pope Francis also reminds us in *Laudato Si'* (the second encyclical of Pope Francis) that we all share the responsibility for caring for creation, which many people look on as ‘Mother Earth’. It appraises us that “disinterested concern for others and rejecting every form of self-centeredness and self-absorption are essential if we truly wish to care for our brothers and sisters and for the natural environment. These attitudes also attune us to the moral imperative of assessing the impact of our every action and personal decision on the environment.” It is a logical conclusion that Christians need “an ‘ecological conversion,’ whereby the effects of their encounter with Jesus Christ become evident in their relationship with the environment. Living our vocation to be protectors of God’s handiwork is essential to a life of virtue.” Our faith is one that wants creation to be cherished and renewed. A whole new way of living opens up as a consequence of a personal and passionate relationship with Jesus. We get the grace to transcend ourselves. We get new strength to care for others and for creation through our faith. We can live with a new horizon, embracing Jesus’ vision of the Kingdom of God, of a renewed and transformed world and ecosystem where we are all brothers and sisters, responsible to each other.

The Society of Jesus, a Roman Catholic order of priests and

brothers founded half a millennium ago by the soldier-turned-mystic Ignatius of Loyola, are doing a commendable work with regard to taking care of our Mother Earth. In the vision of their founder, Jesuits seek to “find God in all things.” They dedicate themselves to the “greater glory of God” and for “the good of all humanity.” And they do so gratefully in collaboration with others who share their values, including laypersons. Jesuits draw on the rich tradition of Ignatian spirituality and reflection. In their retreat centres, parishes, campus ministries, and other settings, they offer a variety of resources to all who want to discern God’s presence in their lives. At the same time, they also aim to be “contemplatives in action,” people who bring this spirituality into the wide world. That includes their work on behalf of global justice, peace, and dialogue.

The Universal Apostolic Preferences (2019-2029) that Fr. Peter-Hans Kolvenbach (the 29th Superior General of the Society of Jesus) formulated has guided the Jesuits in making the mission of fostering reconciliation and justice in all the apostolic services for which they, along with others, have been sent. The Apostolic Preferences give the Jesuits and the people in general innumerable solutions to counter the problem with regard to Mother Earth. It tells us about considering who we are and the means that we have at hand, it says we should collaborate with others in developing alternative ways of life based on respect for creation and sustainable development that produces goods that will ensure a decent life for everyone on our planet, if they are distributed justly. The long-term preservation of the conditions for life on our planet is an immensely important spiritual and ethical responsibility. It further illustrates that our collaboration should include taking part in efforts to understand problems deeply, and fostering reflection and discernment that will move us toward decisions that will help to heal the wounds already inflicted on nature’s delicate balance. We must take special care of the areas that are so crucial for the balance of nature that life itself depends on, for example, the Amazon region, the river basins of the Congo, India, and Indonesia, and the wide expanses of the oceans. Caring for nature is one genuine form of venerating God who is at work in creation. The Universal Apostolic Preferences inspire us to boldly take decisions that avoid wreaking further damage and that will change how we live our lives so that the goods of creation are used for the benefit of all. In that shift, we must be present and active. For Jesuits, conversion begins by changing habits based on consuming an unreasonable production of goods.

Thus, we must admit that keeping the environment clean and unpolluted, caring for all species, leaving the Earth as undamaged as possible for the next generation models reverence for our Creator, love for our fellow human beings (even those yet to be born), and the selflessness of Christ to a self-consumed world. As we grow conviction about our role as stewards of God's creation, our view of how we interact with our surroundings should change. Our minds and hearts should increasingly see life through His lens, which should begin to shape our daily choices.

God has given us clear mandates to care for and steward His incredible creation. We must take this to heart, and we must

recognize that this surfaces a huge battle in our hearts. Are we willing to give up what we want for the sake of others, creation, and our Creator? To quote John Stott who says, "We must learn to think and act ecologically. We repent of extravagance, pollution and wanton destruction. We recognize that human beings find it easier to subdue the earth than they do to subdue themselves." Therefore, we cannot live reconciled with creation if we are not able to break free of stagnant individualism. We simply have therefore to go beyond our own concerns, care lovingly for everything that is good for others and contribute in the best possible way for the greater glory of God.





Soil Conservation- Back to Our Golden Past

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"We should not have a petty regard for God's gifts, though we may and should despise our own imperfections." - Saint Ignatius



Soil is one of the most important gifts given to us by God. It was during the Pre-Cambrian period, some 2000 million years ago, that the first soil was thought to have formed. These earliest soils were formed in an atmosphere with little to none oxygen levels and mostly consisted of green clays. Leaching of the rocks and minerals due to the rain supplied by the atmosphere and hydrosphere provided the additional chemical elements necessary for soil formation. Since there was no organic matter in that period, the soil was considered to be sterile. Gradually, in the Devonian period, 400 million years ago, soil started to develop. This soil was reddish to brownish in colour, indicating the presence of higher amounts of oxygen in the atmosphere due to the evolution of photosynthetic plants. The first soil organism also appeared and this period also marked the formation of "living" soil, as we know it. The origin of agriculture can be traced to around 11,000 BC, after the last ice age, when much of earth was subjected to long dry seasons. These conditions favoured annual plants, which could not survive the dry season, and left behind a dormant seed or tuber. This abundance of readily storable wild grains and pulses enabled "hunter-gatherers", in some areas, to form the first settled villages. The first eight "founder crops" of agriculture emerged after 9500 BC. Wheat was the first crop to be extensively domesticated. Further in this article, we would discuss about the old agricultural practices, the advent of chemical fertilizers and pesticides and the consequences of its use for intense agricultural practices. Evidences suggested that farming started around 10,000 to 12,000 years ago. However, recent findings suggest that humans knew how to cultivate plants long before that, approximately 23,000 years ago. It is common knowledge that deforestation is carried out to create more area for cultivation. But this practice exposed the topsoil to the elements of nature leading to erosion by wind and water. Tillage was also responsible for soil erosion and led to roots of plants being unable to hold on to the soil firmly.



In order to determine the lifestyle and diet of early humans, scientists utilize various methods such as examining the stone tools which were used to process food like grinding stones and scrapers. Remains of storage pits and garbage refuse

deposits containing small pieces of bones and plant matter provide some of the best clues about diet. Also, other analysis methods involve the testing of animal and human bones. Information about the diet of local people of a region, of a particular time, is necessary in order to understand the types of crops grown, as well as the soil condition used for cultivation, due to their activities. Some of the well-known old agricultural practices are as follows :

- **Agro forestry** is a very old farming technique that includes the planting and maintaining of trees along with the crops so as to provide a 'microclimate'. This microclimate is essential because it provides protection to the growing crops. This technique helps to control factors such as temperature, humidity, sunlight, wind and rain. Many benefits are associated with this practice due to which it is still a very popular farming method to this day. Various products such as timber, firewood, food crops, etc. are obtained, the soil structure and quality is greatly improved, and soil erosion is significantly reduced. Additionally, this type of farming holds social and economic benefits for the farmers.
- **Polyculture** is a system where many plants of different species are grown in the same area. There are various types of polyculture such as cover cropping, perma culture and integrated aquaculture. This traditional system is particularly helpful in controlling weeds, pests and diseases naturally while providing a sustainable practice. It helps to reduce soil erosion and improves stable yields.
- **Crop rotation** or Sequential cropping, was founded by the environmentalist Dr. Vandana Shiva. This practice includes the growing of different crops on the same land based on seasons, in a successive manner. It reduces soil erosion significantly while maintaining soil productivity and nutrients, at the same time, it also reduces pests and weeds. The inter-relationship of the crops used in the system depend on their contribution to the soil and the offsprings produced while employing other crop management systems.
- **Mixed cropping** or Inter-cropping or Co-cultivation, was a method which involved the planting of two or more types of plants simultaneously in the same field. This system was beneficial as it provided natural resistance to crop diseases, infestations and droughts. The Three Sisters is an example of this system where three crops namely maize, beans and squash were grown together in the same garden. Maize provided support to the beans, while both these crops provided humidity-control and shade for the squash which in turn suppressed the growth of weeds.
- **Slash and burn agriculture**, also known as swidden or shifting agriculture referred to the tending of domesticated crop that involved the rotation of several plots of land in the planting cycle. The timing was an important factor without which the fallow periods to regenerate soil was affected. But these practices affected the organic matter present in soil, which in turn led to the depletion of nutrients and soil fertility. As a result, the yield was also significantly reduced.
- **Viking Age Landnám** was a Norse farming method prevalent in Scandinavia where livestock were moved to the summer pastures and into individual farms during winter. Stands of trees were removed to create the pastures, cut peat and drained bogs were used to irrigate the fields. These methods were later implemented by Vikings in Greenland and Iceland in the ninth and tenth centuries, but the inappropriateness of the method in a different region lead to the notable degradation of the soil. The soil in Greenland and Iceland originated from volcanic eruptions, hence the soil was silt-sized, with a high organic content and susceptible to erosion. As a result, the removal of peat and bogs affected the natural and adapted plants of the region, additionally the invasion of Scandinavian species worsened the effect. Extensive manuring only slightly helped improve the conditions, but onset of the Medieval Little Ice Age exacerbated the situation. During this period the temperatures dropped significantly which in turn affected the land, animals and the local people of the region. Various assessments revealed that in Iceland, at least 40 percent of the topsoil has been lost since the ninth century whereas soil erosion affected 73 percent of Iceland.
- **Fallowing** can be described as the soil rejuvenation and the accumulation of essential nutrients in the process. This is done by not growing any crops for a period of time, so that the accumulated nutrients are later utilised for maintaining the upcoming agroecosystem. This practice dates back to ancient times, especially for wheat cultivation that required adequate moisture. The adequate moisture content in soil was attained by the fallowing period, following which the wheat was planted. Once fallowing was started, actions to enhance its cost-

effectiveness were planned, that led to the use of naturally occurring plant species capable of 'gathering' nutrients and refurbishing the soil for later crop planting activities. For example, legumes helped in nitrogen fixing, marigolds reduced nematodes, etc. However, the downside to fallowing was that the exposure of the soil to the environment left it susceptible to wind and water erosion. Careful cost-benefit analysis is necessary so that well-managed fallows can be obtained by preferably using a mixed plant system. This in turn increases the yield, so that the need for combustion of lands and addition of external growth promoters decrease.

In the 21st century, to meet the food requirement of an ever-increasing human population of our consumer society, forest cover is being converted into agricultural patches and pastures. Population is increasing in a geometric progression whereas the agricultural land can be expanded in arithmetic progression upto a certain limit. Soil nutrition is an important aspect for crops to flourish, and hence to feed the population, it is required to achieve maximum efficiency of soil. The quality of yield is affected by the nutrient availability in soil. But it has been observed that nutrient availability in permanent agricultural patches is very poor and hence farmers turn to irrigation and fertilizers. Chemical fertilizers are synthetic substances that provide necessary nutrients for healthy plant growth and development. Chemical fertilizers have combined synthetic forms of the primary macronutrients for plants such as nitrogen, phosphorus, and potassium, as well as various micronutrients. Complex chemical fertilizers commonly contain a mix of nitro phosphate and ammonium phosphate. The well-known benefit of having synthetically developed fertilizers is to have more nutrients per pound than organic fertilizers, thus reducing costs. Chemical fertilizers have many uses for garden use as well as the commercial sale or use. Fertilizers provide plants with the nutrients they need to grow and there's no need to wait to see improvements. The proper use of chemical fertilizers represents one of the most cost-effective ways to enhance plant production. But excessive use of fertilizers has adverse effects and chemical fertilizers make it worse; soil salinity, heavy metal accumulation, soil pollution, water eutrophication and nitrate accumulation, water pollution, air pollution, greenhouse effects have been recorded.

The chemical fertilizer being dissolved in the soil, affects salinity. The salinity induced by N can adversely affect the nitrification process in soil, resulting in accumulation of NO_2^- .

Application of phosphorus fertilizer, such as DAP, results in an increased concentration of the soluble salts. Increased salinity inhibits nitrification process, resulting in lesser transformation of ammonia (NH_4) to nitrate-nitrogen, therefore, a huge amount of N is present in the form of NH_4 at the highest level of salinity. The potassium fertilizer, typically based on sulphate or chloride salts, may lead to salinization of soil due to their large salt index. Diversity in microbial culture collection (MCC) [bacteria, fungi, virus, protozoa] is vital in maintaining the soil health because they play crucial role in the formation of soil structure, decomposition of soil organic matter (SOM), and nutrients' biogeochemical cycling.

Excessive use of chemical fertilizer disrupts microbial habitat. Functional microbial diversity is related with the availability of N, C, P. Increased application of P fertilizer reduces mycorrhizal fungi population in the soil. Nitrogen based fertilizer, like urea, is consumed by bacteria to transform into anhydrous ammonia and carbon dioxide. During the reaction of urea and ammonia gas, urea is mixed with soil to form ammonium hydroxide with pH of 11.6, which is very caustic and creates serious burns. It forms an unsafe environment that destroys soil dwelling organisms. KCl associates with nitrates in soil to form chlorine gas that destroys soil microbiota. Again excess potassium in soil results in less availability of calcium, that affects soil structure. As a result, availability of soil air decreases. These factors as a whole disrupt functional soil microbiota. Pseudomonas population is highly reduced by constant application of chemical fertilizers.

Nitrogen from agricultural fields find way to the water environment by three ways: Drainage, leaching and flow. Nitrate leaching can particularly be linked to agricultural practices such as fertilization and cultivation. On reaching the depth of soil, fertilizers, through nitrification by microorganisms, are converted to nitrate. Out of the 100% nitrogenous fertilizers applied, plants generally use 50% of it, 2-20% is lost by evaporation, organic compounds in the clay soil reacts with 15-25% and the remaining 2-10% interferes with surface and ground water. Mostly, nitrogenous fertilizers are not absorbed and hence, they interfere with both underground and surface water. Groundwater nitrate is a problem at global scale. The nitrate concentration of both the groundwater and surface water is increased by agricultural activities. The most common form of dissolved nitrogen found in groundwater is nitrate. It can however be also found in the form of nitrite (NO_2^-), nitrogen (N_2), nitrogen oxide (N_2O) and organic nitrogen. Nitrates from drinking water is

absorbed in the intestinal tract and it takes 4-12h to be excreted by the kidneys. The toxicological effects of nitrate can be examined in different stages. The primary toxic effect- if nitrate concentrations in drinking water exceeds 50 mg NO₃/L, inflammation of the digestive and urinary systems is seen. Secondary toxicity- high nitrate concentration in drinking water causes methemoglobinemia in infants. Infants younger than six months do not have stomach acid. In this environment, nitrate and nitrite reacts with haemoglobin, and the blood is minimized. Meanwhile blood oxygen transport function of haemoglobin is lost. As a result, infants die. With advancing age, this risk is eliminated as a result of the increase in stomach acids. Secondary and tertiary amines react with a nitrosating agent [formed from nitrite in aqueous or acidic medium] to form nitrosamine. Strong carcinogenic effects of nitrosamines have been identified in recent studies. Another negative effect of rigorous fertilizer use is water eutrophication. Increased nitrogen and phosphorous compounds in water acts as nutrient source for aquatic plants and algae. It degrades water quality and aquatic environment. This water no more remains suitable for drinking and water supply, live species reduces in the aquatic environment. Moreover, it can prove lethal to organisms living in both lakes and reservoirs.

In terms of Air Pollution, chemical fertilizers have quite an input. When it applied in excess, it causes air pollution by nitrogen oxides (NO, N₂O, NO₂) emissions, which in turn contributes to the greenhouses effect. When ammonium fertilizers along with urea are applied to Calcareous and alkaline soils, can result in evaporation of NH₃. Ammonia emission can cause vegetation damage. NH₃ may be oxidized and turned into nitric acid, which alongside sulfuric acid [from industrial sources], causes acid rain. Vegetation can be damaged by acid rain. Chemical fertilizers thus produce these GHGs and reactive nitrogen (Nr) into the environment, thereby contributing to global climate change. GHGs' play a huge role in global warming. Whereas reactive nitrogen circulates easily in air, atmosphere, plants, water bodies, and soil and thus has various roles in the adaptation of climate change. 24% of the global GHG emission is accounted for the agricultural sector. N₂O (nitrous oxide) is a significant potent green gas from the agriculture sector that contributes to climate change because of the use of synthetic nitrogen fertilizer as chemical fertilizer. As known, methane is the second most GHG which contributes to climate change from the agricultural field), sheep and cow's digestive tract due to the process of anaerobic fermentation. ICAR [Indian council

of Agricultural research] recommends to reduce the use of chemical fertilizers. Use of nutrients with balanced inorganic and organic sources can reduce the deterioration of soil health, as well as limit the contamination of groundwater. ICAR also advocates for split application of fertilizers, to use slow-release nitrogen-based fertilizers and nitrification inhibitors, as well as leguminous crops being cultivated.

It is noticed that with a gradually changing climate, behaviour, biodiversity, and population of insect and pest population will change. To control the pest population, changes in application pattern and type of agrochemicals (like pesticides) will result in cost variability. Due to changes in weather, there is an increase in the geographical distribution of pests and other pathogens, also an increased risk due to invasions by migrant pests and due to pesticides. If there is an increased resistance in pests, it, in turn, provides prolonged time for pathogen build-up. By 2050, it is estimated that the use of pesticides will increase a 3-fold. With the rapid increase in diversity of several insect pests, weeds, the overall performance of pesticides is highly affected. Application of high doses of pesticide under commonly observed climate change has increased the threat to a few beneficial insects such honeybees, ladybugs and also leads to contamination in the environment. According to a recent report, the rapid volatilization of pesticides and chemical fertilizers from the entire soil system and the surface of vegetables occurred under the direct influence of increased environmental temperature and thereby caused the problem of atmospheric pollution. It was also observed that organochlorines proved to show more volatilization as compared to other groups of the pesticide under tropical or hotter weather. Hence, a tropical climate proves to increase the risk of the diffused release of pesticides into the environment. The massive diffusion of agrochemicals also results from an increase in the strength of rainfall that promotes the immense risk of leaching in soil, and simultaneously, an increase in temperature can counteract the leaching of pesticides due to the maximum rate of degradation. Higher temperature poses more risk of drought in some regions and this inhibits the degradation of pesticides. Thus, under a continuous change in temperature pattern, the intensity of pesticide use is expected to increase in huge amounts and varied frequencies. Adapted pesticide use will ultimately influence the consumer at the end of the food chain. Most pesticides listed are used in agriculture for one of the following purposes: Protecting plants or plant products against all harmful organisms (e.g., fungicides, insecticides, molluscicides, nematocides, rodenticides) and

influencing the common and simple life processes of plants. Pesticides can be classified according to the type of pest they control - Algicides, Antifoulants, Attractants, Defoliants, Desiccants, Disinfectants and sanitizers, Fungicides, Fumigants, Herbicides, Insect growth regulators, Insecticides, Miticides (also called acaricides), Molluscicides, Nematicides, Ovicides, Pheromones, Plant growth regulators, Plant Incorporated Protectants, Repellents, and Rodenticides. Pesticides were common after World War because major research was in progress with respect to hunger. 3.2 million tons of pesticides are used each year (approximately). Pesticides are a waste in environments where farmers have scarce knowledge of the ill effects of chemical pesticides. Without proper regulations and enforcement, the use of chemical pesticides can easily spread to areas much more than their intended area. This is commonly observed in developing countries.

In this article, we discussed the beginning of agriculture while highlighting the different techniques practised in agriculture in the early times. We also discussed the various methods scientists utilized to determine the lifestyle and diet of early humans. While stating that the use of chemical fertilizers and pesticides increased the agricultural output exponentially, we also explored about its harmful effects on the environment. We also studied about the effects of fertilizers on soil salinity, heavy metal accumulation, soil pollution, water eutrophication and nitrate accumulation. Despite the dreary situation, there seems to be hope on the horizon to bring back soil to its golden past. Several studies have been carried out and are still being carried out to help soil regain its vitality.

1. Extraction and separation technique

Solvent extraction – In this method, the contaminated soil and oil is mixed with an extracting agent. Generally, an aqueous solution is used, but an organic solvent is preferred. Potential applications of this technique include the removal of heavy metals from soil, such as cadmium, copper, zinc, lead, organo-metallic compounds and some cyanides using sodium hydroxide solution. It can also be potentially used to eliminate hydrocarbons and halogenated hydrocarbons. For contaminants which are usually present in the finer or coarser fraction of the soil or the organic component of the soil, for example, humus, a process is used, for its removal, which separates the soil into fractions on the basis of specific gravity or particle size or settling velocity.

2. Thermal Methods

In thermal methods, the removal of contaminants is done by evaporation, either by direct heat transfer using heated air or an open flame, or by indirect heat transfer, and the destruction of the contaminants at an appropriate temperature. The gas leaving the heating chamber must be treated to destroy or remove any contaminants or unwanted products of combustion.

Stream stripping is a related procedure. In this process, steam is injected into the soil to aid evaporation of relatively volatile contaminants which may be water soluble or insoluble.

3. Chemical methods

The chemical methods involve the treatment of soil in suspension, in a suitable liquid and without sludging. In these processes, frequent intimate contact between soil and chemicals is necessary to complete the detoxification process.

4. Microbial methods

Microbial treatment methods deal with organic contaminants including phenol, polychlorinated hydrocarbons, oil and oil products, dioxins, etc. In this process a community of microbes already existing in-situ is collected and cultured in the laboratory or microbial strains, which are capable of metabolizing particular chemicals, are developed in the laboratory. Soil excavated from the site, prior to treatment, is used to provide optimum growth conditions.

5. Reducing chemical fertilizer and pesticide use

Utilization of bio-fertilizers and manures can reduce the use of chemical fertilizers. Pesticide use can be reduced by using biological pest management approaches.

6. Reusing materials

Reusing materials like glass, plastics, papers, clothes, etc., at domestic levels can reduce solid waste pollution.

7. Recycling and recovery of materials

Recycling materials like glass, some plastics, and paper can reduce the volume of refuse and help in the conservation of natural resources. For example, recovery of 1 tonne of paper can save 17 trees.

8. Reforesting

Restoring of forests and grass cover is done to check wastelands, soil erosion and floods. Crop rotation or mixed cropping can help improve soil fertility.

9. Solid waste treatment

Industrial wastes should undergo physical, chemical and biological treatment until they are less hazardous. Acidic and alkaline waste should undergo neutralization before proper disposal. Biodegradable insoluble materials should be allowed to degrade under controlled conditions before its disposal. New areas for storage of non-biodegradable hazardous wastes, for deep-well injection and more secure landfills, should be investigated.

10. Soil monitoring

The primary objective of soil monitoring is to avoid and reduce contamination by compounds that have the potential to harm the soil, as well as the air, water, and organisms that may come into contact with it. The goal is to assess contaminants that have been discharged to the soil surface.

As Franklin D Roosevelt so beautifully stated, "A nation that destroys its land kills itself," let us all work together to assist our country achieve its pinnacle by restoring our soil to its former glory.

References

1. Chemical Fertilizers and Their Impact on Soil Health. (2021). In Microbiota and Biofertilizers (pp. 1-20). Research Gate.
2. Hirst, K. K. (2021, February 16). "Ancient Farming - Concepts, Techniques, and Experimental Archaeology". Retrieved from thoughtco.com/ancient-farming-concepts-techniques-171877.
3. Muhammad Aqeel Ashraf, M. J. (2014, March 26th). Soil Contamination, Risk Assessment and Remediation. Retrieved from <https://www.intechopen.com/chapters/46032>
4. Norton, R. D. (2017). Retrieved from <https://doi.org/10.1016/B978-0-12-805312-6.00010-6>
5. Savci, S. (2012). An Agricultural Pollutant: Chemical Fertilizer. International Journal of Environmental Science and Development.





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