**THE ECOLOGY OF HUMAN DEVELOPMENT**

**Ecological background**
- We do not live in isolation – we interact
- Environment: everything outside the system that we (the organism) live in
- Human beings = biological organism + social organism that interact and have transactions with(in) the environment

**General System Theory**
- Basic concepts from the General Systems theory are applied
- Holistic perspective = holism, looking at living nature as interacting wholes (the whole is greater than the sum of the parts)
- Every system has 4 elements: Objects; Attributes; relationships & Environments

**The history behind ecological approach**
- Aristotle & Plato used ecological perspective in observing population growth and the stability of the environment (to some extent, Darwin did too)
- Ernst Haeckel, a German zoologist (1969) introduced the term ecology
- *Oikos* (a Greek term) = home / family
- Ecology means the study of family/household & environment

**Haeckel claimed:** Individuals are formed/developed from the interaction between the environment & heredity
- A Chemist, Ellen Swallow Richards proposed a Scientific field of study to examine the influence of home environment onto the family
- Ellen studied air and water quality, sanitation, food & nutrition
Environment = anything that surrounds; can affect systems ➔ understanding person-in-context

What is ECOSYSTEM? ..
A type of system .. Ecological system
Made up of living organism (O) with their environments (E)
originates from ecology: a science that investigate & describe reciprocal relationships between O & E

Characteristics of ecological approach:
Unique; the basic concepts exist in multiple disciplines: social sc; arts & humanities; applied sc.
Holistic, multi-disciplin & systemic
Focus: Interaction (bi-directional) & inter-relationships & mutual influence between organisme (individual & family) and the environment

Basis: a survival unit never consist of O or species in a static environment; but rather, that it is an ecosystem with all O in reciprocal relationships with each other & with E
Human behaviour is influenced by the environment v.v.
Even though the environment changes due to technology, human beings need to impose control on life & environment to ascertain quality of life

Bases: Human development is studied from the context of person-in-environment
The principle: all growth & development occur in the context of relationships
It’s an inter-disciplinary concept

Ecosystems seek a steady / stable / balanced state of existence ➔ HOMEOSTASIS
O adapts to reach homeostasis

Human Ecological System Perspective

System Theory
Objects + Attributes + Relationships + Environment +

Ecological Theory
Organism + Environment + Interaction +

Human Ecology

Processing

Input ➔ Output

Feedback ➔ ENVIRONMENT

ENVIRONMENT
To integrate & link various human & family issues holistically in a comprehensive manner to ensure a global plan of action

Human ecology = a field of study that considers individuals & families within their environment & the relationships between them

6 assumptions for the human ecological framework

1. Human-beings are not passive receivers of information & inputs
2. Systems are dynamic always changing
3. Individuals & social systems have the capacity to change (they also wish to change)

4. Changing one element of a system will cause change(s) to other parts
5. Systems rely interdependently on one another to operate
6. All systems have boundaries

Pioneer:

Beatrice Paolucci (Michigan State University) employed the home-economics approach

Suggested that family is a social system that depend on:
- The natural environment for physical maintenance
- Social environment for human values; meaning and quality of life

Margaret Buboltz & Susan Sontag (Michigan State University) continue Paolucci's work

Proposed 3 environments that surround human beings:
- Natural - biophysical
- Socio-cultural
- Technology-human constructed
**Pioneer:**
- Urie Bronfenbrenner (Cornell University) focussed on contextual aspects of human development
- He introduced 5 environmental systems: micro, meso, exo, macro & crono

**Socio-cultural Environment**
- Social institution i.e kinship, religion, politic, economy, legal, recreation or symbolic group
- Determines civilization & cultural system

**ENVIRONMENT**
- Physical, biological, social, economic, political, esthetics & structure surroundings
- They are contexts for human behavioural & growth/development
- Can be classified according to resources within them

**Technology – human constructed environment**
- Buildings, bridge, hydro-electric, houses, highway
- Built using materials from the natural environment
- Sc & technology advancement helps to improve quality of life; abuse of it may destroy life

**Natural / bio-physical environment**
- **Mother-nature resources**
- **Water, earth, snow, time, plants, animals, fossil, minerals**
- Can be beneficial for human consumptions

**Family Ecosystem Model [Bubolz & Sontag; 1990]**
Context of environments

- Classification based on size of the environment
  - MICRO ⇒ small
  - MACRO ⇒ BIG

- Bronfenbrenner (1979): the ecology of human development based upon the relationships between human beings & context where they interact or make transactions (exchange resources)
- The 5 systems are embedded within each other; the nearest environment is the environment where the individual resides & develops

EXOSYSTEM

- Refers to > 1 settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by what happens in the setting containing the developing person
- Eg: exosystem of a child might include the parent’s place of work, a school attended by his older siblings, activities of the neighbourhood etc

MICROSYSTEM

- The nearest environment to the individuals
- A pattern of activities, roles & interpersonal relations experienced by the developing person in a given setting with particular physical & material characteristics
- Eg: Home environment & classroom are micro environments for primary school children

MACROSYSTEM

- Abstract in nature: refers to consistencies, in the form & content of lower order system (micro, meso, exo) that exist, or could exist, at the level of subculture or the culture as a whole along with any belief systems or ideology underlying such consistencies.
- Eg: socio-cultural / customs; legal systems, religion, education, defense system.
- e space is perceived differently across cultures - what the determined the differences? Law? Religion? Custom?

MESOSYSTEM

- Comprises the interrelations among > 2 settings in which the developing person actively participates
- Eg: Child: relations between home-school & neighbourhood; Adults: family-work-social life
- It is a system for the microsystem

CHRONOSYSTEM

- Refers to patterns of events & transitions that take place in individual's environment throughout his/her life
- The element of TIME is important in this system
The importance of the ecological perspective in understanding human development:

- It takes the holistic approach (considers multiple factors regarding person – in – context). Focuses on wholeness.
- Any phenomenon is seen from multiple perspectives > aiming to get the obtain high quality of life / environment.
- Allows for an integrated plan of action - balanced & holistic; lend to improve Quality of life (indiv., family, community...)

Basic principles in ecological model (Conrad & Novick, 1996)

- Human development is studied through the person-in-environment perspective.
- Multiple & different environments experienced by individuals influenced the growth & development of individuals.
- Every environment has its risks & protective factors.
- The interactions between individuals & environment are two-way / reciprocal. It creates a complex feedback system.
- Indiv. & family will always face changes & growth. Stress, coping & adaptation are normal developmental experiences.

Environments do not determine human behaviour; but they can influence them through: limiting / blocking / allowing / facilitating / opening for opportunities & possibilities.

Families do not exist in isolation from the other environments, rather, they have a degree of control and freedom on their interactions / transactions with the environment & acquisition of resources.

The general human/family ecological focussed on the near environment (people, materials) which provide physical context & prime base for personal & familial activities.

The community system (neighborhood, market, schools, mosques/church/temple are included.

The macro (bigger) environments may also influence indiv. & family.

Decisions & actions that are taken by indiv./families will give an impact on the community, culture, other environments...> the WORLD.

The world’s ecological well-being depends on the decisions & actions by the nation...down to the indiv. & families.

Decisions made at macro level or even at the WORLD’s platform, will directly or indirectly impacting the indiv. & families.
**Input, throughput & output of the family ecosystem**

- Family ecosystem receives INPUT from the env., transform into OUTPUT back to the env.
- Family inputs: matter/energy (physical substance – food, clothing, housing, support system, services & information – knowledge, values, policies, law, custom & belief system
- Inputs are obtained through multiple methods; help families to function accordingly

**SUMMARY**

- The ecological perspective encourages the following criteria in order to understand human beings:
  1. An integrated thinking
  2. Creative thinking
  3. A comprehensive focus of dynamic
  4. Systemic understanding
  5. Ethical reasoning
  6. Variability
  7. Practical action
  8. Self understanding

**Human development occurs within the family context through family processes & activities**

- These processes & activities are needed and influenced by the reciprocal interactions with & within the natural-physical; human constructed & socio-cultural environments
- The outcome → QUALITY OF LIFE & ENVIRONMENT
- Human Q of life: To what extent human needs, values & goals are met & how are they obtained
- Q of env. = safety, health, coping strategy, adequacy, justice… in providing natural resources, economic, social needs & support.

**FAMILIES WITH VARIOUS CHARACTERISTICS**

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<thead>
<tr>
<th>Structure</th>
<th>Ethnic Origin</th>
<th>Socio-economic status</th>
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<tbody>
<tr>
<td>Needs</td>
<td>Values</td>
<td>Goals</td>
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<td>Resources</td>
<td>Artifacts</td>
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**INTERACTIONS WITH & WITHIN MULTIPLE ENVIRONMENTS**

- Natural-biological-physical Human constructed Socio-cultural

**TRANSFORM**

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<tr>
<th>Energy</th>
<th>Information</th>
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**INVOLVED IN CORE PROCESSES**

- Adaptations

**THROUGH ACTIVITIES / PROCESSES**

- Perceiving
- Decision making
- Sustainability
- Organization
- Management
- Human development
- Communication
- Technology advancement
- Design

**OUTCOME**

- Q of Life & Q of Environment
- Products of the realizations of values & goals
- Human well-being

**Environmental Sustainability Practices**

Figure: Interrelationships between concepts in Family Ecology theory