

Attitudes and Sustainability: Myths and Realities

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Introduction: the problem

- 2.4 billion people no adequate sanitation
- over 90% of sewage: polluting rivers, lakes and coastal areas
- conventional sanitation: two options
 - "drop and store" and
 - "flush and forget"
- conventional sanitation: neither ecological nor economical solution

What can be done?

Ecological Sanitation (EcoSan): an alternative

- to avoid disadvantages of conventional system
- holistic approach towards ecologically and economically sound sanitation
- experts: EcoSan technologies superior
 - no guarantee for adoption
 - even in developed countries uptake of sustainable waste management: **disappointing**
 - rationality alone may not convince the user to adopt EcoSan.

What can be done?

Questions

- If rationality of experts is not the determinant of EcoSan, then what are the determinants?
- What is the role of attitude of potential adopters?
- What is the relationship between attitudes toward EcoSan and its adoption?

Aim of this paper

- is to differentiate myths and realities regarding the adoption of sustainable practices and to provide recommendations regarding promotion of EcoSan practices.
 - What factors contribute to adoption of sustainable behaviors (EcoSan practices)?

Linking attitude and behavior

What is attitude

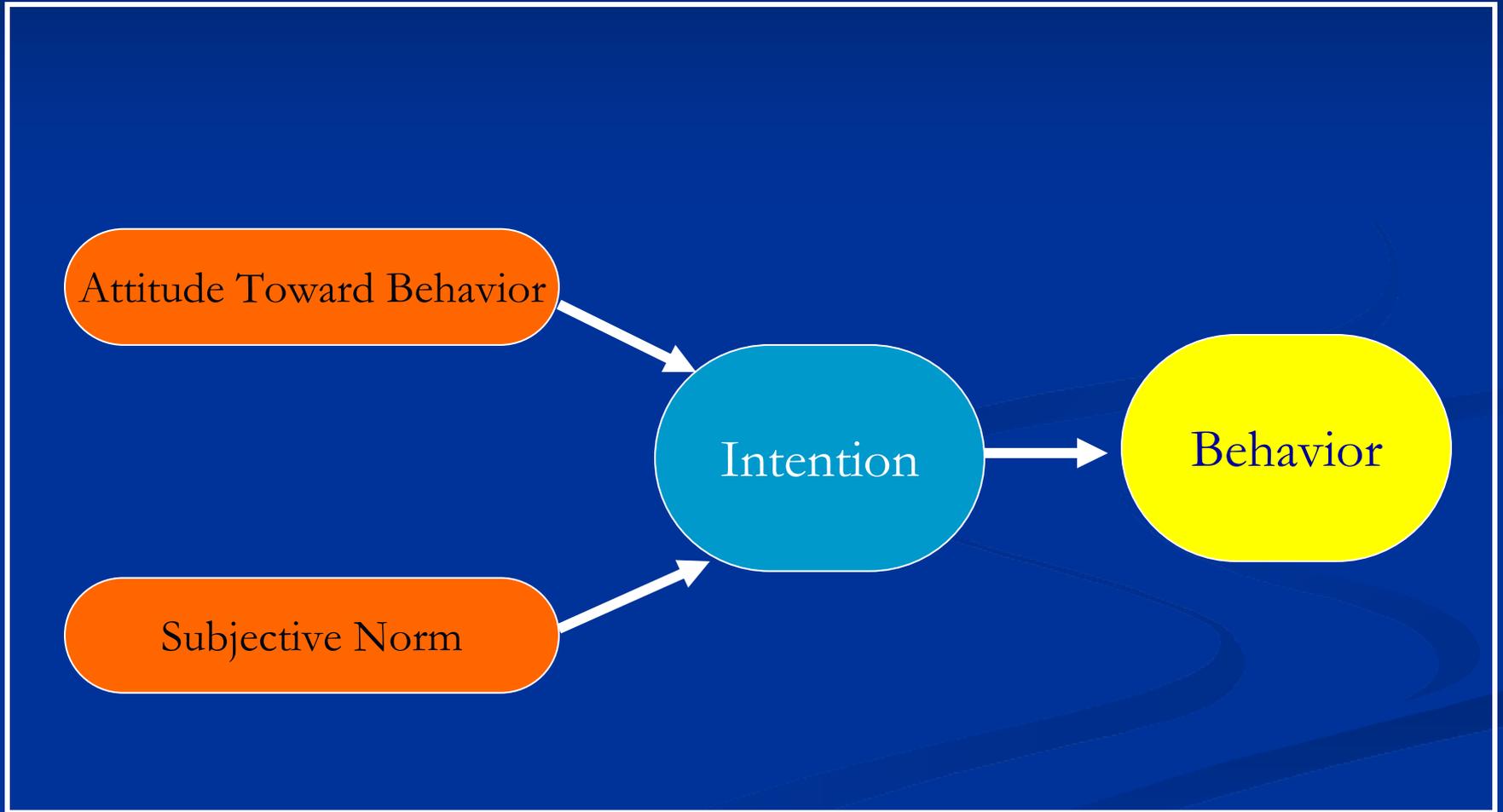
- Attitudes are defined as a disposition to respond favorably or unfavorably to an object, person, institution or event
- Attitudes are formed by what an individual perceives to be true about the attitude-object
- Attitude is a predisposition to act in a certain way
- It is the state of readiness that influences a person to act in a given manner

Linking attitude and behavior: causal relationships between attitudes and behaviors

- Investigators have taken four different positions:
 - attitudes cause behaviors;
 - behaviors cause attitudes;
 - attitudes and behavior have mutual causal impact;
and
 - attitudes and behaviors are slightly, if at all related
- (Bentler and Speckart, 1981)

What are the major theories that have been developed to explain the relationship between attitudes and behavior ?

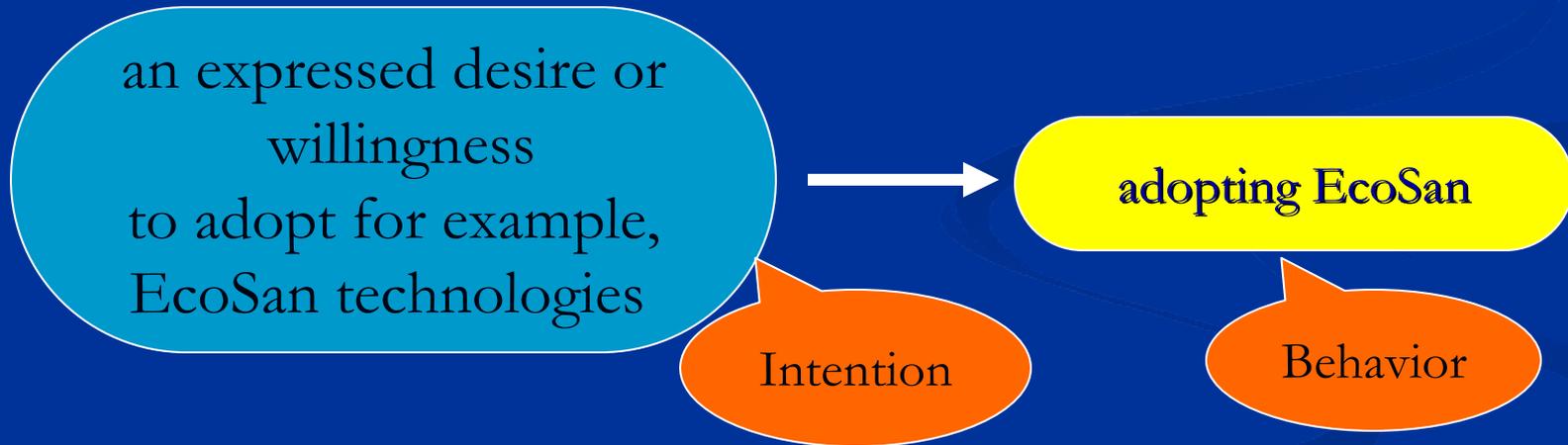
Theory of Reasoned Action (TRA)



TRA:



- Behavior is determined by Intention
- For example:



TRA:



- Behavior intention in turn is predicted by attitude towards that behavior and subjective norms
- Attitudes refer to a person's overall assessment of the advantages and disadvantages of performing a given behavior (for example, that EcoSan helps the environment or that it increases soil fertility)
- Subjective norm examines a person's perception of the social pressure from significant others to perform the behavior (for example, noticing that most people adopted EcoSan)
 - It refers to the perceived social pressure to perform or not to perform the behavior

Theory of Planned Behavior (TPB)

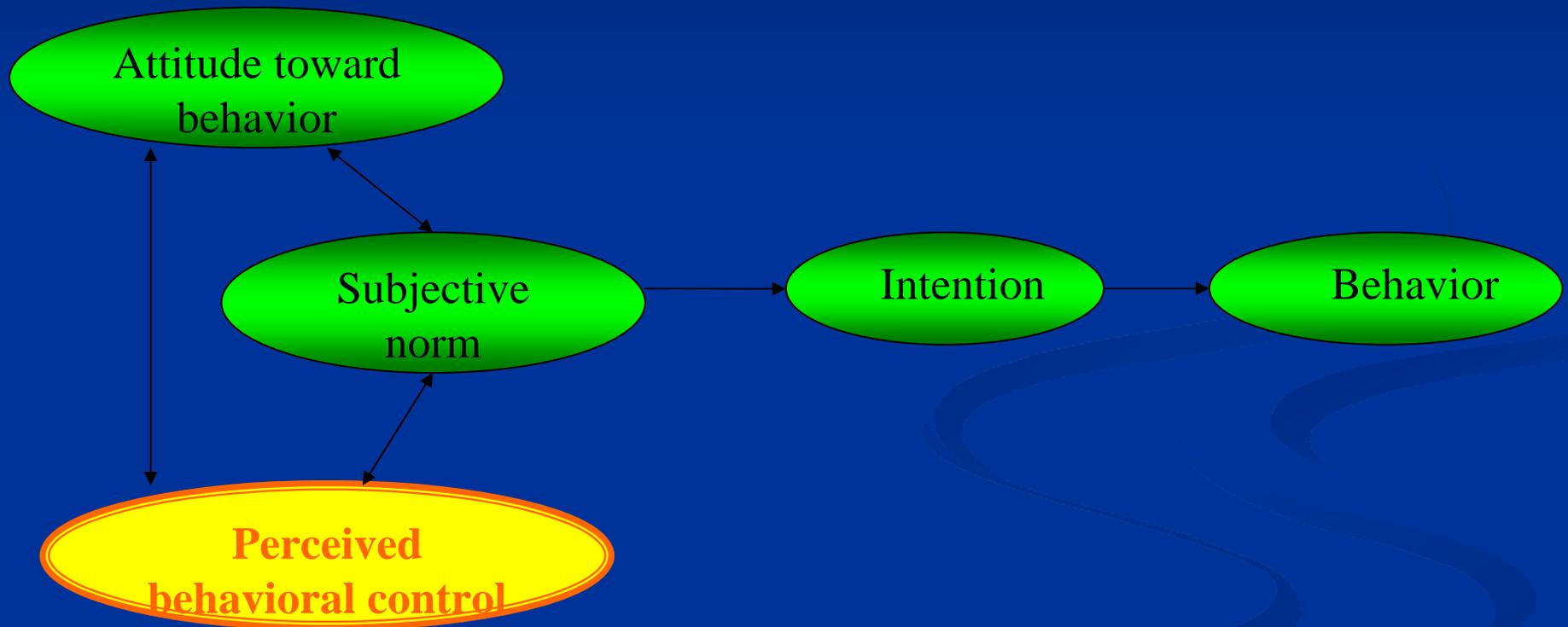


Fig.2 Theory of Planned Behavior (TPB)

TPB

- The Extension of TRA
- two elements mentioned previously, that is,
 - “*attitude towards behavior*” and
 - “*normative*” are retained,
- however a third element is added
 - “*perceived behavioral control*”
 - refers to the perceived ease or difficulty in performing the behavior
 - People who believe that they have no control over a situation are unlikely to form strong behavioral intentions, even if they hold positive inclinations towards the behavior

TPB assumes

- behaviors are not within a person's control
- *Perceived behavioral control* deals with ease or difficulty of performing the behavior, Contributing factors are:
 - past experiences,
 - knowledge,
 - competencies,
 - resources,
 - opportunities and barriers to performing the task.
- e.g. individual identifies that they may not have the necessary personal resources to carry out their intentions: adopting EcoSan

Factors influencing EcoSan attitudes and behaviors

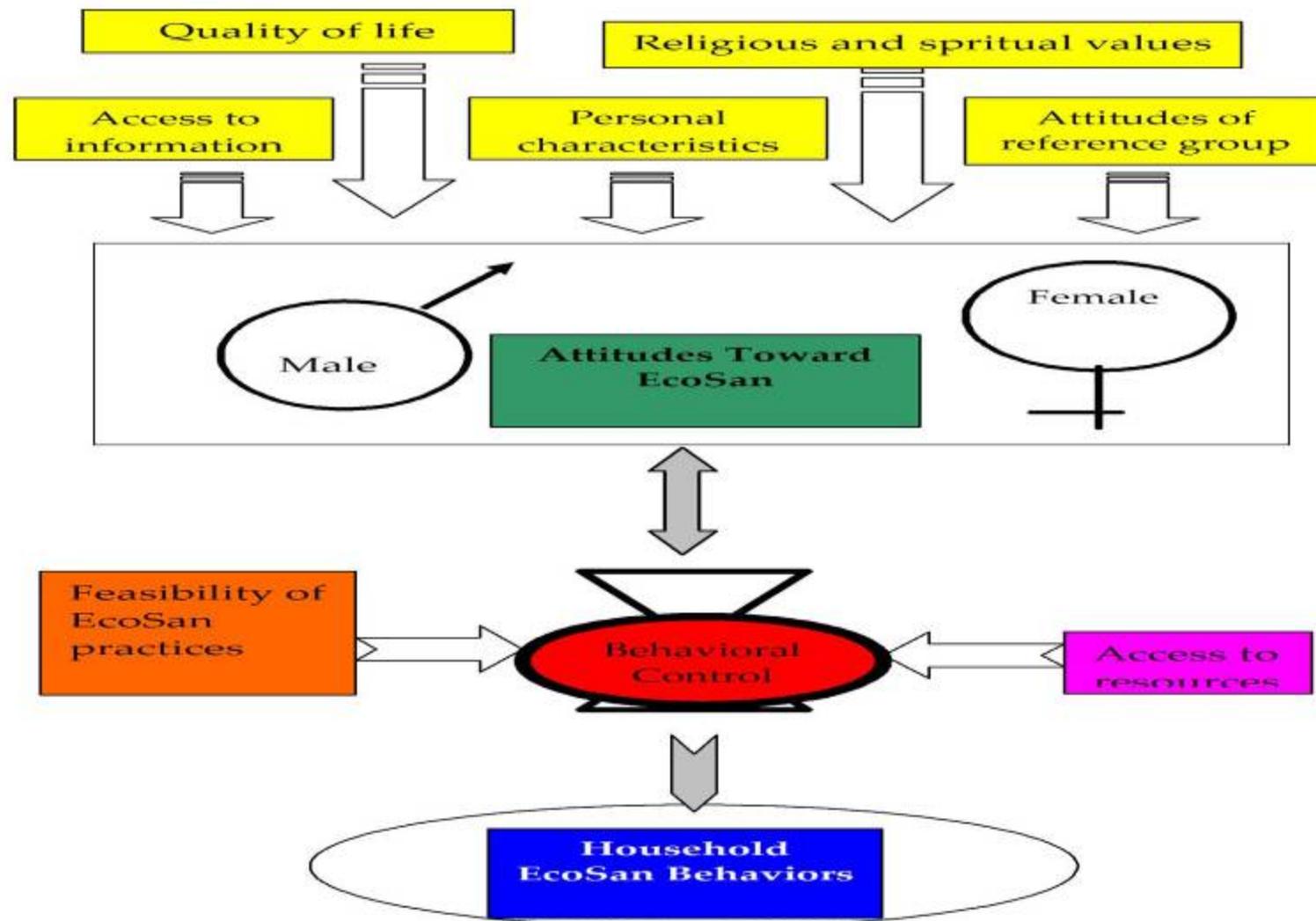


Fig.3. Conceptual model of factors influencing attitudes and behaviors with regard to EcoSan practices.

Source: Karami and Mansorabadi (in press)

Attitude towards sustainable sanitation

- factors which influence belief system and contribute toward formation of EcoSan beliefs:
 - religious and spiritual values,
 - Religions: the concept of cleanness
 - strongly influence the way people evaluate EcoSan
 - attitude towards crops produced from human excreta and re-used water
 - quality of life,
 - better quality of life are expected to poses more negative attitudes toward sustainable sanitation and
 - consumption of crop produced in EcoSan cycle
 - access to information,
 - fundamental contributor towards attitude formation
 - If have is trustworthy knowledge they are likely to engage in the behavior
 - personal characteristics
 - Such as age and education
 - attitudes of reference group

Factors influencing EcoSan attitudes and behaviors

Control factors

- beliefs about the presence of factors that may further or hinder performance of the behavior
 - e.g.: access to resources and feasibility of sustainable sanitation practices
- behaviors are not within a potential adopter's control
- believe: neither the resources nor the opportunities to perform sustainable sanitation practices >> unlikely to form strong behavioral intentions
- Economic factors, access to resources and feasibility of sustainable sanitation practices >>> significantly affect EcoSan behaviors.

Factors influencing EcoSan attitudes and behaviors

Sustainable sanitation behaviors

- Sustainable sanitation management includes:
 - *Minimize*: withdrawal of finite natural resources
 - *Stop*: release of non-biodegradable substances
 - *Maintain*: circular flows of matter
 - *Withdrawal of renewable resources should not exceed the pace of their regeneration.*
- People will perform the sustainable sanitation behaviors if:
 - they have developed positive attitudes toward them and
 - believe they are capable of performing the practices with easy

It can be concluded that:

- availability of EcoSan technologies is crucial for sustainable development.
- rate of adoption of EcoSan is rather slow.
- EcoSan is not only a technical problem >>social problem
- Attitudes are important >>taken into account:
 - religious and spiritual values, quality of life, access to information, personal characteristics and attitudes of reference group
- Subjective norm (social pressure) >> EcoSan behaviors.
- believe capable of performing EcoSan with ease >> behavior.
- In combination, attitude toward the behavior, subjective norm, and perception of behavioral control lead to the practice of a sustainable sanitation behavior.

EcoSan plans need careful social planning.