



ISAHP

2018

HONG KONG, HK

Remembering Prof. Thomas Saaty

Demand Driven Cases of AHP Applications

Shashi Bhattarai

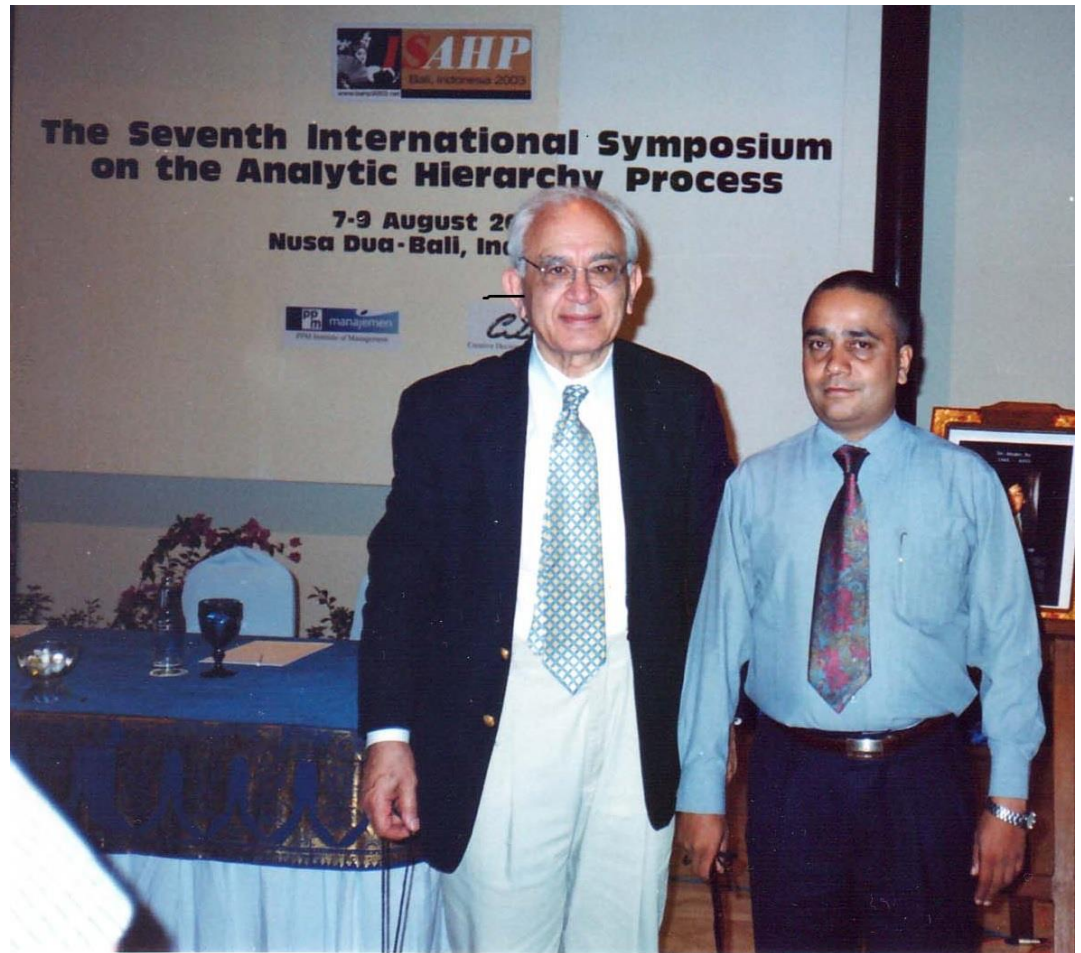
Co-founder & Chairman

Knowledge Holding International

June 13, 2018

Prof. Tom Saaty: ISAHP2003, Bali

- AHP to reach **common people**
- Addressing **common problems**
- **Not only for academics**





Presentation Coverage

Speakers:

- John W. Edwards, University of Florida
- John W. Edwards, University of Florida
- Richard A. Baskerville, University of Florida
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- Richard A. Baskerville, University of Florida

**The Seventh International Symposium
on the Analytic Hierarchy Process**

**7-9 August, 2003
Nusa Dua - Bali, Indonesia**

Logos: IAHAP, CDA

Stories

- Demand responsive
- Practical solutions
- Internalized utility of AHP by:
 - Users
 - Hosts, and
 - Enthusiasts
- from Nepal and Bhutan
- Most recent first

Before Jumping to Stories

Demand Response

We

for AHP application

- Catalytic role
- Common problems
- Common people
- Innovation, Entrepreneurship & Business Incubation

Earlier more for Transport, Energy services
Now with **Technology & Business**

Example:



enabling new Demand REsponse Advanced, Market oriented and
secure technologies, solutions and business models

<http://edream-h2020.eu/>

Project of European Union's Horizon
2020 **research & innovation programme** under
grant agreement n°774478



Story – I:

Application of AHP & GIS to Predict Landslide Hazard

- National Convention, **Nepal Engineers Association (NEA)**, 15 March 2018
- **Glad** to see a paper on **AHP Application in Hazard Mapping**
- I took it simply as **Another Academic Exercise**
- **Surprised to learn** this was **Professional Exercise**
after listening to her presentation
- Earlier work on AHP applications in Nepalese context helped to build confidence in the industry level

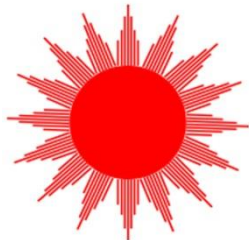
Story – I

Application of AHP & GIS to Predict Landslide Hazard

	Altitude	Slope	Aspect	Soil Type	Land use	Drainage Density	Existing Landslides	Distance to Stream
Altitude	1	5	3	3	4	5	1	5
Slope	0.2	1	5	3	7	4	9	2
Aspect	0.333	0.2	1	4	2	3	2	1
Soil Type	0.333	0.33	0.25	1	1	3	5	5
Land use	0.25	0.14	0.5	1	1	4	1	3
Drainage Density	0.2	0.25	0.33	0.3 3	0.2 5	1	5	2
Existing Landslides	1	0.11	0.5	0.2	0.2	0.2	1	5
Distance to Streams	0.2	0.5	1	0.2	0.5	0.5	0.2	1

Story – II

Dilemma in choosing a candidate: Nepal Legislative Election 2017



सूर्यले निम्त्याएको धर्मसंकट

Dilemma created by Sun

Best Candidate to Vote

Personal Profile

Skills

Age

Edu

PolExp

ProfExp

Success

Speak

Write

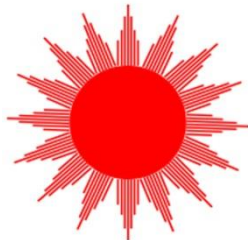
LdrShp

Diplmcy

Implem

MKN

SRA



Surya
means
Sun in
Nepali



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Centre for Bhutan Studies & GNH

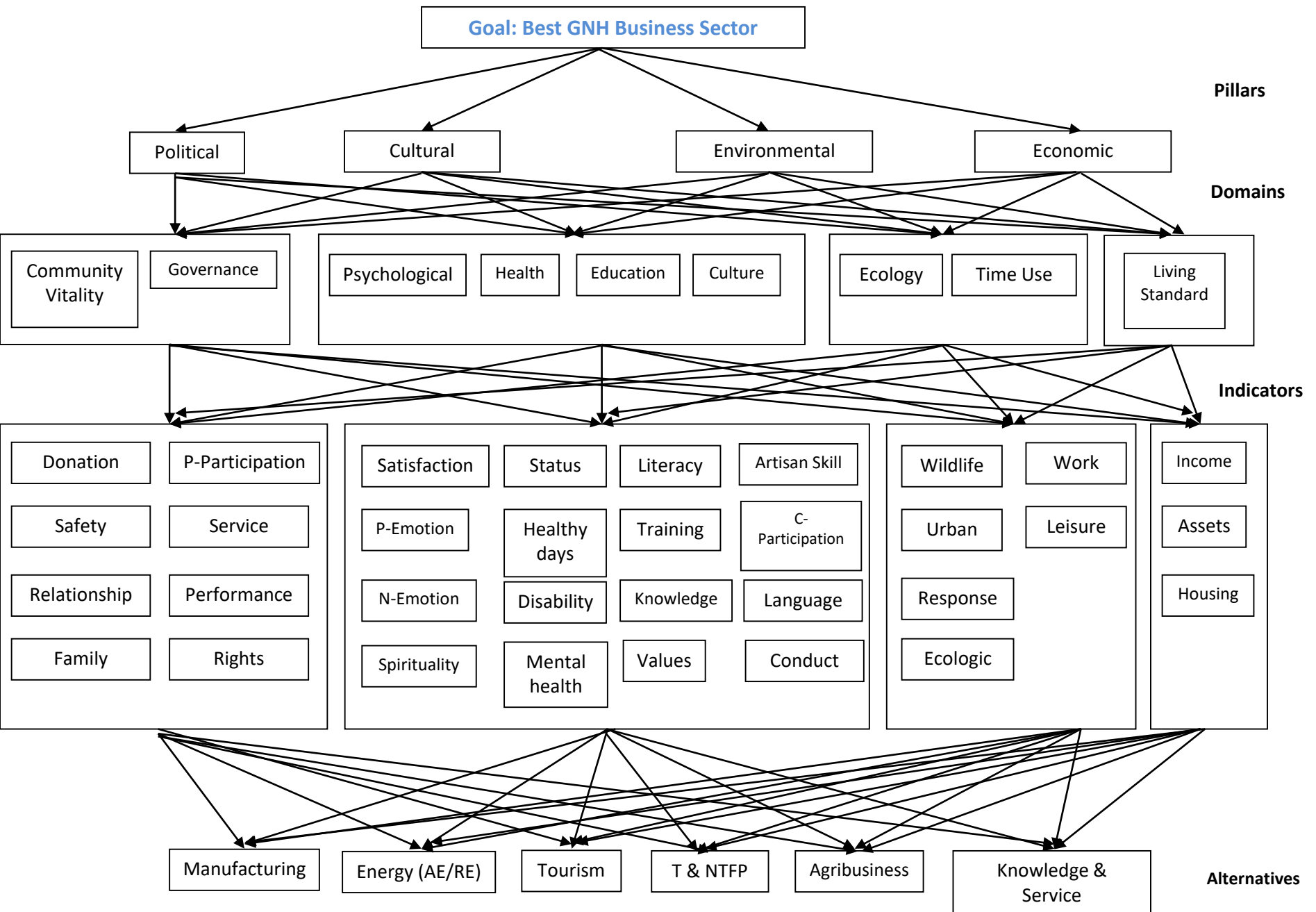


7th International Conference on Gross National Happiness *GNH of Business*

7 – 9 November, 2017
Thimphu, Bhutan

Story – III

**Application of AHP for Gross National
Happiness (GNH) of Business, Bhutan.**
November 2017





Government of Nepal

Ministry of Energy, Water Resources and Irrigation

Alternative Energy Promotion Centre

Making Renewable Energy Mainstream Supply in Nepal

Story – IV

Application of AHP for Micro Hydropower Plants (MHPs)

Demand created from earlier exercise to
Rural Water Supply Schemes

Sustainability Monitoring Framework for MHPs

Development & Application Phases

Phase I Design

- **Framework Design, Development and Pre-testing**
- Literature review
- Internal Consultation
- Framework Development
- Pre-testing at **Pinthali, Daune Kholā MHP**

Phase II Piloting

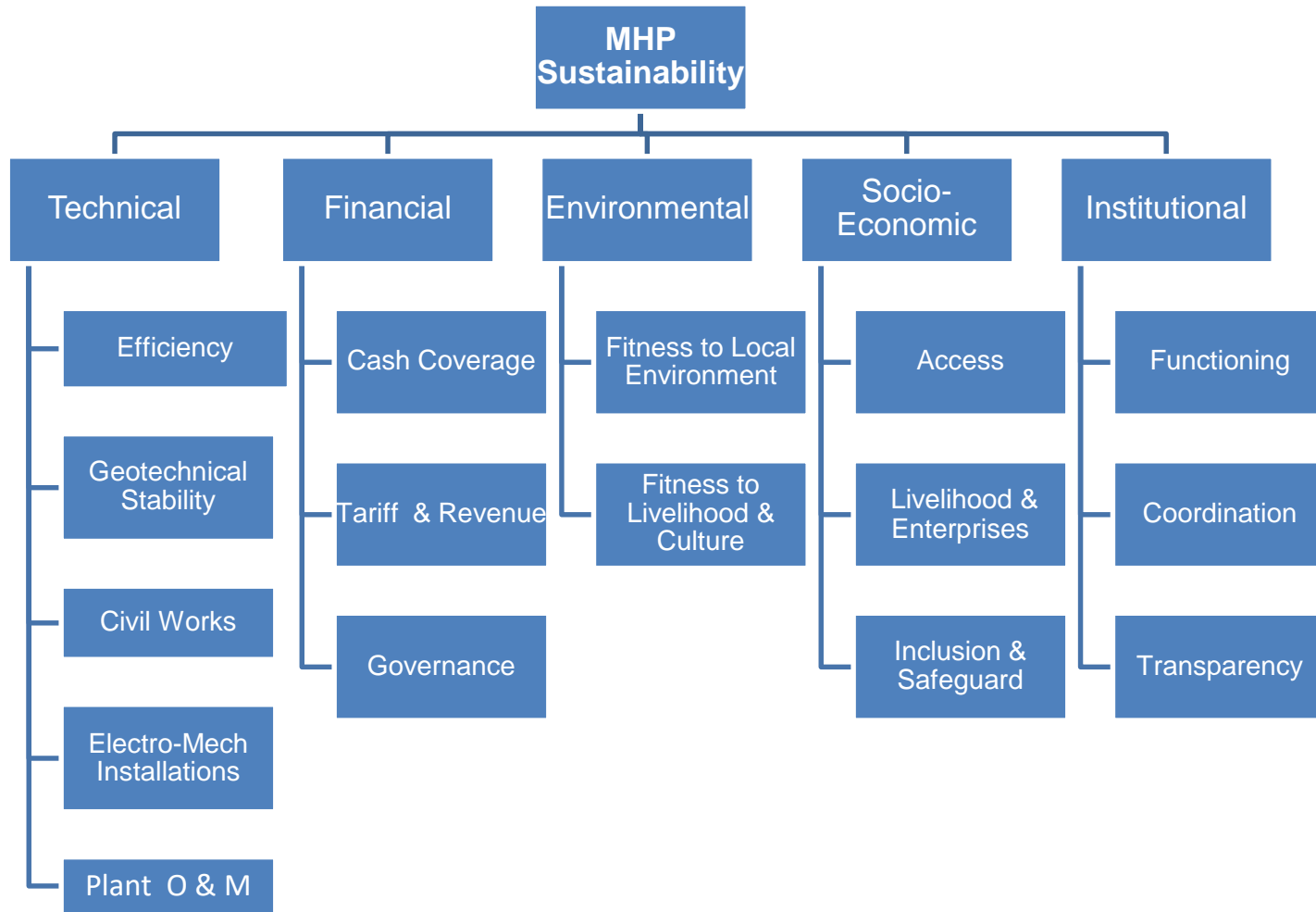
- **Refinement and Piloting**
- Wider Consultation
- Modified field assessment sheets and Piloting at 11 MHPs
- Learning from field experience and improvement Recommendations
- Recommendation for next Phase of Adaptation / Deployment
Sustainability Monitoring at mixed sample environment

Next Adaptation

- **Adaptation process start with modification recommended in Phase II**
- Wider / diversified MHPs to monitoring
- Improvement by learning as monitoring process moves forward / Learning by doing and improving as per feedback
- Adaptation of the Framework for Sustainability Monitoring

Modified Sustainability Monitoring Framework

(AHP based Multi Criteria Analysis)



Sustainability Status of MHP under Monitoring

Moral from The Stories

- Growing interest on AHP among students / young professionals
- Bigger scale / More complex application on real life issues of public interest is going on ~
- Mass Transit and Fast Track Transport systems, Procurement to name few
- Demand response is coming from development agencies such as ADB and UNDP
- Reaching out to common people



Knowledge
Holding
International

Thank you !!!

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