

Workshop Output WS 3.4.F

Title of workshop: 3.4.F Education for Sustainable Mountain Development

Prepared by

Moderators	Kenichi UENO, Martin F. Price
Participants*	Sarah-Lan, P. Phanchung, H. Christian, H.G.Edward, G. Alessandro, F. J. Marcua

* Workshop participants that have submitted contributions to the workshop

General questions to please be answered in the workshop reporting

- 1) What was the focus of the workshop? Methodological issues and advancements or thematic issues (systems knowledge, transformation knowledge, target knowledge). Please check and fill in the matrix in the output section.

Methodological issues and advancements	Thematic issues		
	System knowledge	Transformation knowledge	Target Knowledge
*	*	*	

- 1) Which key points were discussed in the workshop as a whole? (This should be more a synthesis and not simply a summary of the key points in each presentation)

To share and exchange international experiences for education of sustainable mountain development (ESMD), ongoing efforts and challenges of education concepts and systems are introduced from 10 presenters. Especially, we introduced each other about three topics, such as 1) concrete opportunities and challenges in teaching and learning about mountains and sustainable mountain development, 2) experiences from the development and organization of SMD education programs and coordination mechanisms, and 3) concrete implementation plans to study SMD in the courses. The experiences discussed in the workshop included a wide range of examples, including: informal education and social learning to support employment and development; field courses to support the academic development of PhD students; face-to-face and online university courses at undergraduate and Masters levels. The importance of experiences in the field, with mountain stakeholders, was underlined. All of the experiences involved universities, but not all were formal university education. ESMD is about lifelong learning and, while some knowledge and skills are transferable, local/regional contexts are very important.

- 2) What is your opinion on the current state of knowledge concerning your topic(s) (focusing on mountain regions)? *Please check and fill in the matrix on the following page.*

Overall assessment of the state of:

What is your personal opinion on the current state of knowledge concerning the topic(s) addressed in your workshop. Please tick the appropriate field. Brief explanations are appreciated.

State of knowledge	Very good	Good	Poor	Very poor	Not appropriate	Comments
Global		*				<i>Common issues were identified between the participants.</i>
Regional			*			<i>Examples were presented from Africa, Europe, Latin America. A synthesis paper in preparation also includes examples from other regions.</i>
Scattered case study-based knowledge			*			<i>We have quite a lot of examples of ESMD; these include many different audiences and approaches.</i>
Knowledge about past states/trends				*		<i>We could not trace the time line of the ESMD history.</i>
Knowledge about current situation		*				<i>Universities and national universities are often not very supportive of interdisciplinary approaches, especially where these involve multiple institutions – though such approaches are necessary and desirable for ESMD at university level.</i>
Knowledge about future states/trends/thresholds			*			
Knowledge about the system		*				
Knowledge about shaping pathways to more sustainable development (transformation knowledge)		*				<i>There are many different approaches to ESMD. A key challenge is to ensure the availability of the necessary tools for this to be effective.</i>
Knowledge about envisaged goals (target knowledge)			*			

Ideas for questions to potentially be answered by the moderators after the workshop in the reporting (please delete what is not useful):

- 1) Were there any new insights and/or findings presented? If yes, which ones?
- 2) What was the main message/consensus of your workshop?
- 3) Were major uncertainty issues identified and discussed? If yes, which ones?
- 4) Was there any significant controversy (if so, what?) that requires new data (or further exploration of existing data) to resolve the issue? (explain)
- 5) Were new research questions raised? If yes, would working on these questions need to involve other disciplines (which ones)?
- 6) Did the workshop identify research topics (e.g. environmental drivers other than climate) that are, in your opinion, currently greatly underrepresented in mountain research, but should urgently be addressed?

Further Comments

Key personal comments

University collaboration

Importance of credit transfer mechanism

Diversity of students, such as age, experiences, education level with variety of future job..

Introduce novel approaches including future literacy and system thinking

Implimentation of novel curriculum and education system

Introduction of Future literacy within the VET system

Establish networks of education in spirit of life-long learning for enabling resilience of mountain (marginal) communities