



INTERFACING INDIGENOUS KNOWLEDGE AND CLIMATE CHANGE EDUCATION IN NEPAL: EXPERIENCES OF SCHOOL TEACHERS

International Conference on Communities,
Conservation and Livelihoods, Halifax, Canada
29th May 2018

Pasang Dolma Sherpa
Kathmandu University,
Nepal

Indigenous Knowledge (IK) and CC

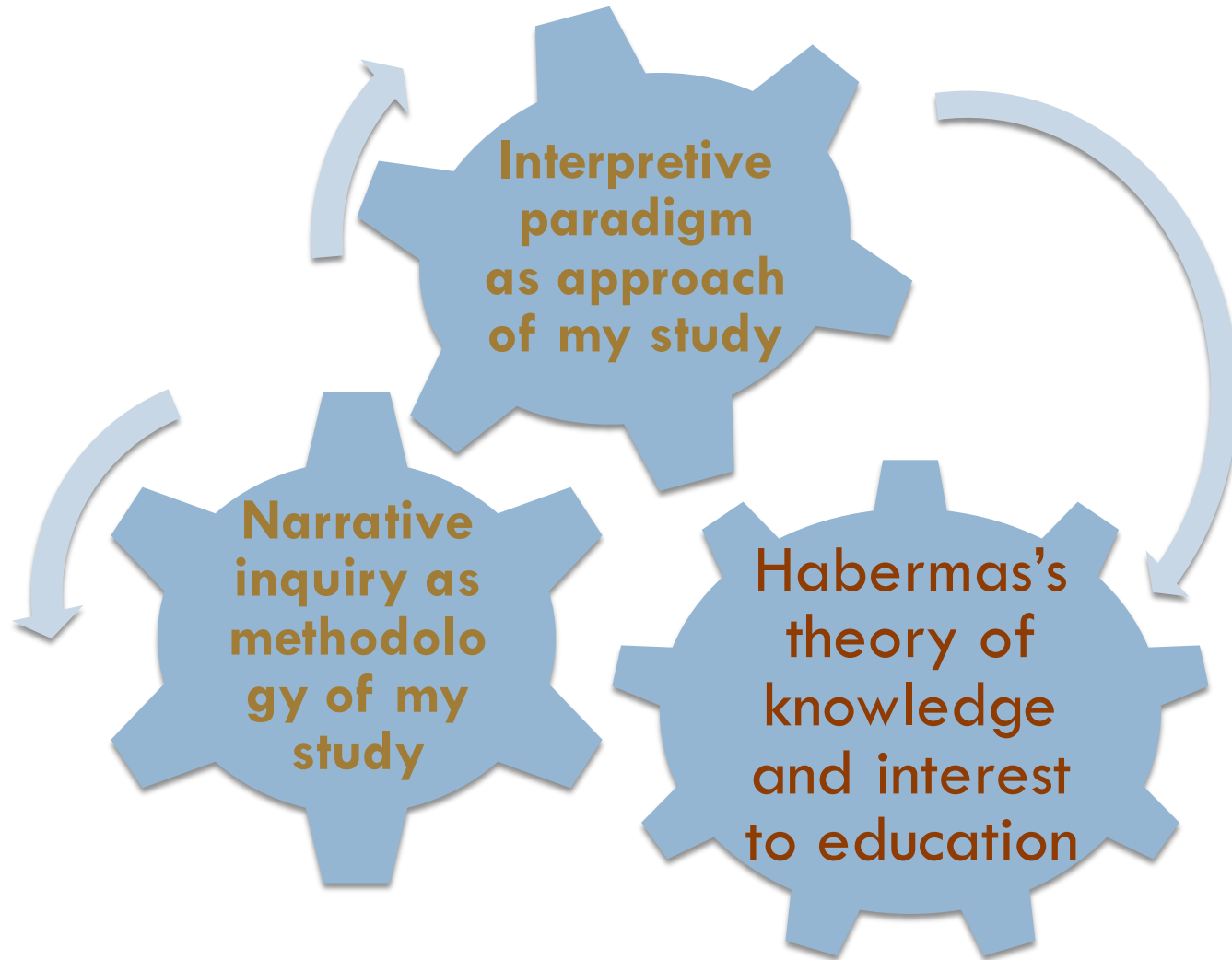
2

- **My stories and interest in CCE**
 - ▣ Working on issue climate change in relation to indigenous peoples at global, national and community levels since 2009
 - ▣ Indigenous knowledge and climate change concerns
 - Indigenous Knowledge & practices: *Nawa* of Sherpas, *Ghapo* of Dolpo, *Ritithiti* of Magar, *Badgar* of Tharu



Lenses of my study

3



Emerging Climate Change Concerns

4

- ▣ If business as usual: rise from 2 to 4 degree centigrade by the end of the century..... severe, pervasive and irreversible negative impacts of people, ecosystems, biodiversity (IPCC, 2014)
- ▣ No one is free from the CC impacts but higher impacts on the developing countries like Nepal
- ▣ Nepal: 4th among 170 countries most vulnerable to the impacts of CC (Maplecroft, 2011)

Indigenous knowledge & CC

5

- ▣ Indigenous knowledge contribution for CC adaptation and mitigation (UNESCO, 2009)
- ▣ Traditional forest related knowledge contributes for sustainable genetic resources, ecosystem and biodiversity (Trosper & Parrotta, 2012)
- ▣ Indigenous and local peoples rarely considered in academic, policy and public discourse on climate change (Salik & Ross, 2007)

Indigenous knowledge and CC

Recognizes indigenous knowledge (Paris Agreement, Para. 135, 2015)

Action for Climate Empowerment (ACE) education, training and public awareness (UNFCCC, 2015)

Global Context

SDG 4: quality education: ensure inclusive and equitable (SDGs, 2015)

SDG 13: CCE, awareness raising, building human and institutional capacity on mitigation and adaptation

Indigenous knowledge and CC

Constitution of Nepal-clean and healthy environment (GoN, 2015)

Climate change policy of Nepal awareness raising, building capacity for CC resilience (GoN, 2011)

National Context

Integrating CC: science curriculum for secondary level of school education (MoSTE & ADB, 2012)

Technical aspects of CCE in Science, : Nature & Environment, Natural Hazards, Green House & CC impacts (Basnet, et. al., 2016)

Stories of School Teachers on CC

8

- School curriculum and revised topics on climate change
 - Meaning, causes and impacts
 - Efforts at national and global level
- Teachers from the same indigenous communities: stories, experience, knowledge and skills in management of the natural resources, biodiversity and livelihoods
- Teachers from outside the community: general examples: melting ice, blooming early flowers

Stories of Teachers Continued...

9

- **Science teachers:** more general knowledge on climate change
- **Social and environmental teachers:** social and cultural aspects but not necessarily IK
- **Teachers with pre-training & orientation** on climate change and indigenous knowledge
 - ▣ Conscious of role and contributions of IK on CC
- **Sharing the local stories and experiences helped**
 - ▣ Creating enthusiasm among children
 - ▣ Helping to be more creative

Interpretation of the stories

10

- Science knowledge on CC helps to meet the **technical interest**
- Giving general examples from the of rising temperature: impacts on melting ice in the mountain, early blooming flowers helps to meet the **practical interest**
- Linking experiences of indigenous communities and their sustainable management of the natural resources helps children to be **critical** towards the wellbeing of the communities – meet the emancipatory interest

Interpretation of the stories Cont....

11

- Development of education from technical, practical and emancipatory interest would be helpful to interface the indigenous knowledge and climate change education



References

- CDC. (2014). *Secondary education curriculum (class 9 & 10)*. Bhaktapur: Curriculum Development Centre .
- Clandinin, D. J. & Connelly, F.M. (2000). *Narrative inquiry: Experience and story in qualitative research*. San Francisco: Jossey-Bass.
- GoN. (2011). *Climate change policy*. Retrieved from www.lawcommission.gov.np
- GoN. (2015). *Constitution of Nepal 2015*. Kathmandu: Author.
- Habermas, J. (1971). *Knowledge and human interests*(Trans. J. J. Shapiro). London: Heinemann.
- IPCC. (2014). *Climate change 2014: Synthesis report*.

References

- Maplecroft. (2011). *The new climate change vulnerability index*. Retrieved from <http://www.maplecroft.com/about/news/ccvi.html>
- MoE. (2011). *Climate change policy, 2011*. Kathmandu: Ministry of Education
- MoSTE & ADB. (2012). *Proceeding of workshop on integrating climate change concepts into the science curriculum for secondary level education* (Unpublished report). Lalitpur: Author
- Nyong, A., Adesina, F., & Elasha, B. O. (2007). The value of indigenous knowledge in climate change mitigation and adaptation strategies in the African Sahel. *Mitigation and Adaptation Strategies for Global Change*, 12(5), 787-797.

References

- Parrotta, J.A., & Agnoletti, M. (2012). Traditional forest-related knowledge and climate change. In J. A. Parrotta, & R. L. Trosper, (Eds.). *Traditional forest-related knowledge: sustaining communities, ecosystems and biocultural diversity*. New York: Springer
- Salick, J. & Ross, N. (2009). Traditional peoples and climate change. *Global Environmental Change*. 19, 137-139.
- SDGs.(2015). *Sustainable development goals*. Retrieved from www.un.org/sustainabledevelopment/sustainable-development-goals/

References

- Terry, P. R. (1997). Habermas and Education: Knowledge, communication, discourse. *Curriculum Studies*, 5(3), 269-279.
- UNESCO & UNFCCC. (2016). *Action for climate empowerment: Guidelines for accelerating solutions through education, training and public awareness*. France: Author
- UNFCCC. (2015). *Conference of the parties: Twenty-first session*. Retrieved from <https://unfccc.int/resource/docs/2015/cop21/eng/109.pdf>
- UNFCCC. (2016). *Summary report on the 3rd dialogue on article 6 of the convention*. Bonn. Retrieved from <http://unfccc.int/resource/docs/2015/sbi/eng/15.pdf>



Thank you