

Science and youth engagement in safeguarding fisheries and aquaculture against climate change

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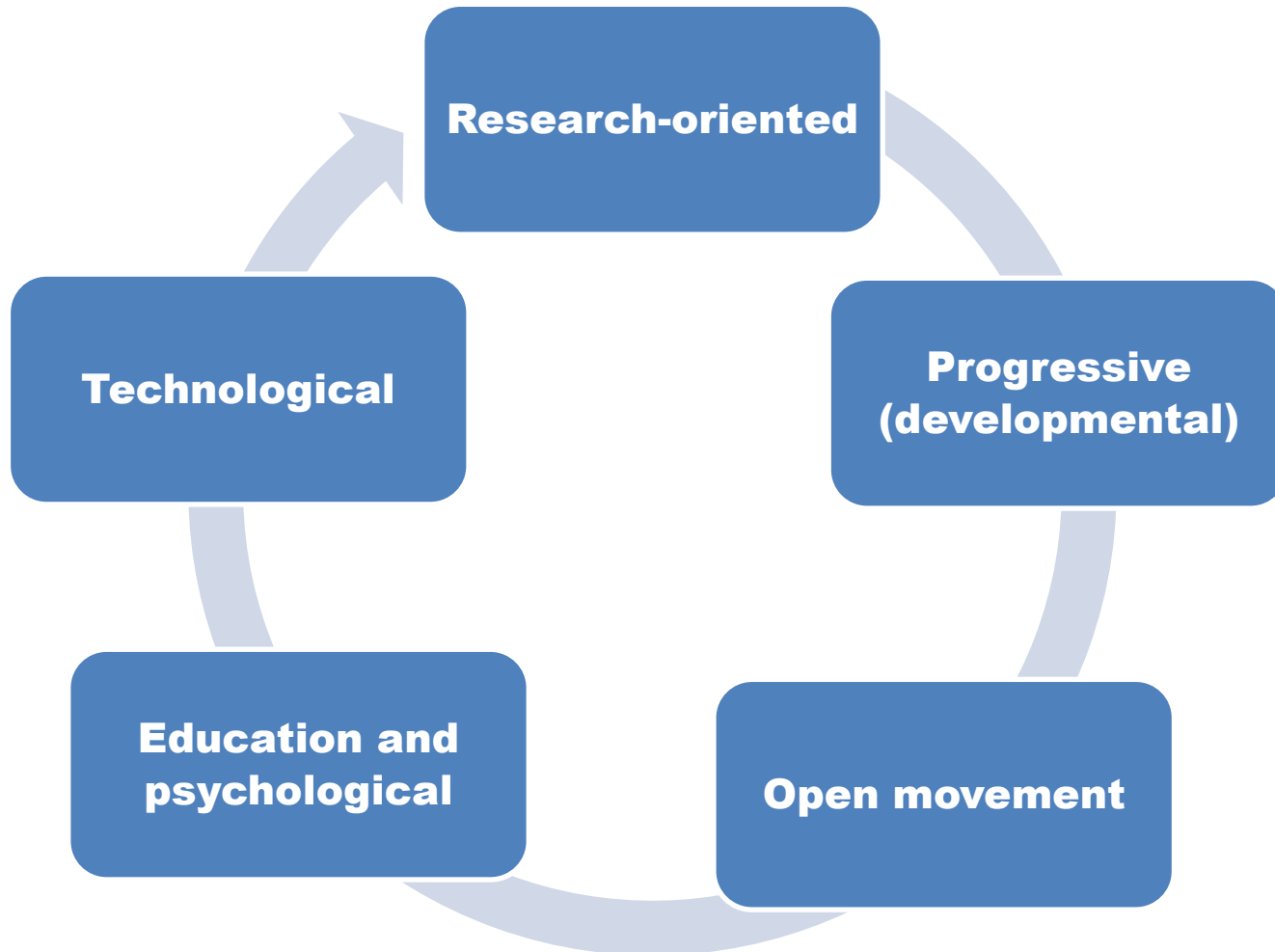
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I. Overarching questions in youth discussions

1. How do we fully engage or empower the young people?
2. What can be done to step up efforts that target youths?
3. What are the limitations of the approaches to engage / empower / involve young people?

II. Frameworks for the youth dimension / perspective



III. Theses for youth inclusion

1. Positive management of the energy and creativity of young
2. Problem-solving, learning and agenda setting processes.
3. Activism
4. “World outside the box”
5. Information and dissemination
6. Funding and grants search

IV. Strategy 1: Enhanced understanding of the youth dimension

- ~ one billion youth (15-24 years) representing 18 percent of the total population that live in the world today according to the United Nations (UN).
- ‘develop and implement strategies for decent and productive work for the youth’ – International Labour Organization and UN Millenium Development Goal No.8

V. Strategy 2: Strengthened role of fisheries and aquaculture in sustainable economic growth and food security

- Reduced threats to available land when compared to other land use practices such as the cultivation of huge tracts of land for bio-fuel production and use of land pieces for monocropping.
- Fish demand is expected to increase substantially at least in line with other protein foods, and particularly in parts of east and south Asia.
- The majority of this extra demand will need to be met by further expansion of aquaculture, which will have significant consequences for the management of aquatic habitats and for the supply of feed resources.

VI. Strategy 3: Increased scholarship in fisheries and aquaculture

- A need for young scientists and institute steps to encourage young people to study agricultural sciences – basic and applied sciences.
- Scholarship is needed to tackle the question how aquaculture and open water farming can be developed so that impacts on wild fish stocks and coastal and aquatic habitats are minimized.
- Youths with a first degree in agriculture or biological sciences should be encouraged and facilitated to establish low-cost tissue-culture business facilities at community level.
- African governments should also start considering young people's views and perceptions in policy making and in reviewing agricultural and biosciences education curricula.

VII. Strategy 4: Improved sustainable interaction between livestock, fisheries and the environment

- Holistic management of resources - Earth, human, and animal.
- Youth scholarship can be extended to the development of strategies for adaptation and coping with climate variability and change through:
 - Developing regional ability for climate forecasting and interpretation of changes for use by farmers and other stakeholders for crisis mitigation.
 - Enhancing use of new and indigenous knowledge for predicting climate change and variability and strengthening coping strategies.
 - Supporting implementation of adaptation and coping strategies to buffer poor farmers from climate induced shocks.

(ASARECA, 2010)

VIII. Strategy 5: Broad-based educational programmes

These include civic, biodiversity and conservation

- Labour provided by volunteer youths is helpful during the siting and construction of a fish pond in community projects which may involve land clearing, installation of water pipes, and fencing off the site.
- During these activities, basic instruction can be delivered to improve learning abilities of small scale fish farmers.
- Practical tools can be data collection and analysis in order to determine the quantity of fish stocks available for commercial exploitation, measured against legal requirements.
- The goal of these programmes would be to train stewards of community resources as a measure against overfishing fish stocks.

IX. Strategy 6: Information and dissemination

- Internet based technologies such Web 2.0 and social media are shaping the global interactions.
- For example, the creation of a Face book pages can help foster free expression of views and opinions by youths on a common fish subject.
- Thematic groups and free web based services e.g. Skype.

X. Strategy 7: Markets and investments

- These would be spaces for young people to use their professional and technical skills in fisheries and aquaculture.
- Young people can pioneer green messages for use to promote markets and investments (e.g. The Living Planet Report by World Wide Fund for Nature).
- Young people can also fundraise money to scale up innovative projects in fisheries and aquaculture.
- The result, is a dynamic mix of players, thus fostering high food safety, quality, and trade.

XI. Strategy 8: Promotional activities

These include prizes, scholarships, think tanks, and grants

- The creation of innovative institutional structures to promote intellectual and experiential learning around topical issues in fisheries and aquaculture.
- Use of road maps and traditional approaches to harness knowledge from communities.
- In the **Wageningen Statement: Climate-Smart Agriculture – Science for Action, The Global Science Conference on Climate-Smart Agriculture (GSCSA), October 26, 2011**, fish is identified as a breeding priority in breeding for a 2030 world. Furthermore, under climate change mitigation the following statement is found: “stimulate technology development and transfer in a number of priority areas: improving ecosystem services mitigation options in crop-agriculture, the livestock and fisheries sector, soil carbon sequestration options, and innovative use of biomass”. The identified priority area is an entry point for young minds.

XII. Strategy 9: Improved governance and training

- Competence and election to public office.
- Pooling of expertise, leadership, and resources.
- Politically-savvy and free movement between state governance structures.

XIII. Conclusions

- A new dispensation is open for youth engagement in fisheries and aquaculture to safeguard against climate change. Through crafted strategies youths can be included in all layers of the economy –with a greater good for the society.
- The global movement around carbon footprint and the public interest it has generated means that youths can be incorporated into this movement to develop green messages – including those for fisheries and aquaculture.
- The creation of the next generation of leaders, scientists, fishpreneurs, and policy makers.
- Interdisciplinary is not a substitute for discipline-specific interactions, though interdisciplinary is key to managing career and discipline risk in the future.