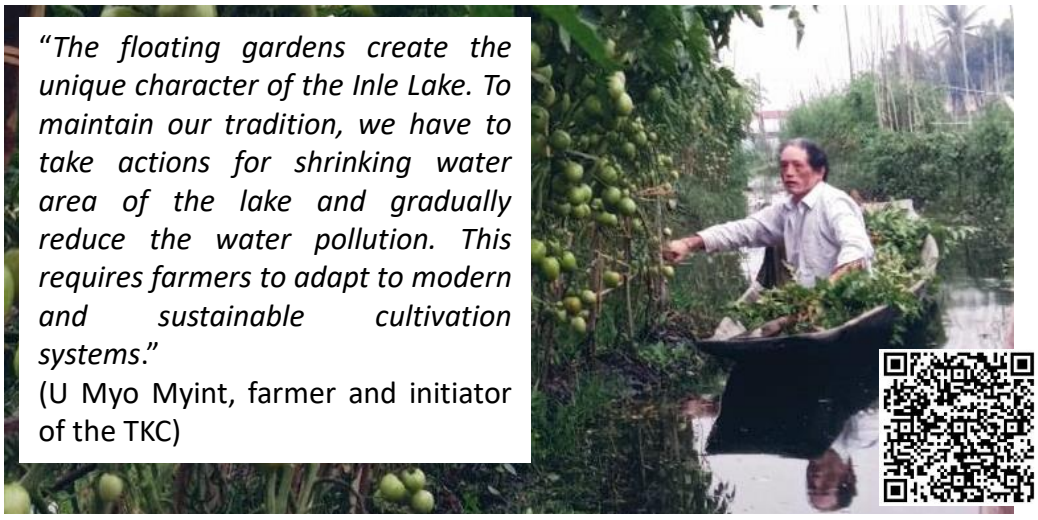
Is Sustainable Tomato Production on Floating Gardens on the Inle Lake (Myanmar) Possible?

Wolfram Spreer[1], Frank Giesel[2], Vicha Sardsud[3], Win Pa Pa Soe[2], Alexander Kunze[4], Johannes Max[4]

[1]Maejo University, International College, Chiang Mai, Thailand, [2] Gesellschaft für Internationale Zusammenarbeit mbH (GIZ), [3]Freelance Consultant, Thailand, [4]Hochschule Weihenstephan-Triesdorf, Department of Plant Nutrition, Germany



"The floating gardens create the unique character of the Inle Lake. To maintain our tradition, we have to take actions for shrinking water area of the lake and gradually reduce the water pollution. This requires farmers to adapt to modern and sustainable cultivation systems."
(U Myo Myint, farmer and initiator of the TKC)

For over 100 years tomato production on floating gardens has a tradition on the Inle Lake in Southern Shan State, Myanmar, making up for a unique scenery with a touristic potential. Over the past years, the ecological condition of the lake has become an increasing cause of concern. Insufficient knowledge and awareness of ecologically appropriate production methods, lack in suitable seeds and the high use of agrochemicals negatively impact the Lake environment, as well as food safety and quality. As a cumulative effect, the water of the lake becomes polluted, leading to social, economic, and environmental issues.

During COVID19 travel restrictions farmers receive remote support for self-organized workshops on improved cropping practices at the "Tomato Knowledge Centre (TKC)"

In 2019, GIZ-SAFI (*Sustainable Agriculture Development and Food Quality Initiative*) started assisting farmers from five different villages to improve the food safety and quality of their tomato cultivation by the transition towards sustainable business practices.
The measure arose from a local initiative and was implemented under the advice of external experts that pave the transition way for a sustainable and competitive tomato cultivation on the lake.

Key interventions:

- Establishment of a greenhouse nursery for production of healthy seedlings
- Apply improved cropping techniques
- Promote varietal diversification and crop rotation
- Provide training on post-harvest techniques and management.

Beneficiaries

direct
- 100 tomato farmers from five villages at Inle Lake
- 478 farmers received certified Myanmar GAP Standard
- Formation of Inlay Farmer Agricultural and Development Community (IFADC)

indirect
- Hundreds of tomato farmers had a chance in learning cultivation technique from peers at TKC
- Consumers from national and international food markets benefitting from safer and higher quality tomatoes

During one cropping cycle interventions were established. At these sites yields were substantially increased and the level of fruit quality was improved to the point that in test sales, farmers obtained the tenfold price due to direct marketing, as compared to selling to classical brokers.

After showing promising steps towards achieving the goal of a sustainable tomato production on Inle Lake, project activities were ended due to the political crises in Myanmar. Nowadays, a return to military dictatorship threatens to reverse Myanmar's economic development of the past years.

Applying appropriate cropping techniques, a sustainable tomato production on the Inle Lake is possible

Tomato production on the Inle Lake before…

… and after the introduction of improved cropping techniques