

Agroecology as a Driver for the Development of a New Sustainable Urban Settlement in Taiwan

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This article reports an on-going research initiative involving Sa'owac village, an urban indigenous community in Taiwan. It concerns the Amis traditional agricultural practices on a peri-urban riverbank settlement as well as addressing political issues such as citizen participation, right to the city, food justice and food sovereignty. Our work adopts a collaborative, participatory and inclusive research approach involving universities, community colleges, NGOs and grassroots social movement organisations in Taiwan.

Sa'owac Village in Taiwan

50 years ago, due to rapid urbanisation and loss of land and livelihoods, groups of the Amis people, the biggest indigenous tribe in number in Taiwan, left their rural east coast homeland and moved to cities, either voluntarily or under coercion, for temporary and low-paid jobs. Gradually, they realised that city life was too difficult but there was no land to return to. A small group followed the Dahan river upstream, to the edge of the metropolitan Taoyuan County (changed to Taoyuan City since 2014). Here in north Taiwan they established their settlement on the riverbank. They built cottages and farmhouses using traditional techniques and recycled materials collected from the urban construction sites. They explored the local environment to gather wild foods, and transformed unused land into vegetable gardens. They also established rice farming, fishing and raised livestock to feed their families.

However, these newly built 'homes' were not safe. In late 2008, in response to land politics and development interests, the Taoyuan metropolitan government notified the Amis indigenous residents that, as illegal residents, their shelters would be dismantled and their fields paved to create a new riverside bicycle route to boost eco-tourism. The Amis, who had settled there with massive hardship and formed a deep attachment to the territory, launched a series of protests. Rather than rejecting the plan of this new bicycle route with its own social and economic merits, they demanded a just compromise accommodating middle class eco-tourism and the livelihood of marginalised peoples.

The violent demolition of their homes by the local government during the protests strengthened their

determination to fight for their basic human rights to stay and live. They publicly announced their tribal name in Amis language, *Sa'owac Niyaro* meaning 'Riverbank Village'. Through intensive networking and strategic alliances with many organisations and individuals, including academics, grassroots activists, NGOs, media reporters, other Amis groups and other indigenous tribes located elsewhere, Sa'owac villagers eventually achieved victory. They reclaimed their land, housing, and farming rights.

Learning from Sa'owac Village

While indigenous food and farming knowledge has made great contributions to rural agroecology, the Sa'owac case study demonstrates its relevance in an urban/peri-urban setting in three ways.

1. Sa'owac villagers retain rich indigenous knowledge of wild food mapping, harvesting, preparation, cooking and other forms of processing. While many of these plants are widely regarded as weeds in non-indigenous eyes, they are common treasures from nature to indigenous people. This knowledge not only meets a large part of Sa'owac villagers' daily nutritional needs, but also plays a central role in maintaining cultural identity. It also supports exploration of the local environment around the settlement and acts as a guide to constructing of an agroecological farming system.
2. Despite its intimate scale, Sa'owac village presents a vivid example of sustainable urban metabolism – an organic circular economy: where indigenous practices attuned natural cycles; and 'waste' is converted into useful resources. This process serves to both heal alienation and close the waste-energy-water-food loops. Such a microcosm of traditional agriculture offers a promising model for other areas, promoting biodiversity and sustainable year-round yields.
3. Sa'owac village demonstrates the potential of indigenous knowledge to transform the peri-urban zone, providing a framework for restoring the livelihood of small-scale urban farmers using socially oriented schemes such as communal and solidarity economies. It also mediates a de-urbanisation phenomenon where people migrate to the countryside and experiment with new forms of smallholder farming practice.

Through long-term exploration and cultivation of the environment, Sa'owac villagers transformed the natural



During the protest period, boards with newspaper clips, “Where is justice? Why demolish the Amis tribe only for a new bicycle route?” were erected just outside their settlement. They are shown being demolished by the local government.



In the foreground, diverse vegetables and fruits, including banana, papaya, cassava, cabbage, aubergine, Chinese spinach, asparagus, and water bamboo shoots are grown in this small vegetable garden. In the middle, there are trellises growing legume plants such as beans, peas and corn, which can help nitrogen fixation. Applying an intercropping farming technique can largely reduce the damage of pests, which does not require any pesticide and chemical fertiliser. In the far distance at the back, one can see modern urban buildings, which are a one-hour drive from this farm site.

riverbank into a thriving ecosystem, which provides favourable ecological conditions for highly productive, diverse and sustainable agroecosystems. Not merely oriented to critiquing dominant society trends, they are redefining the basis of an alternative. Since the protests, the elderly Sa’owac villagers have strongly advocated development of a long-lasting vision for self-reliance and self-determination that can be appreciated not only within the Amis community, especially by the younger urban generation, but also by wider society.

Conclusion

While agroecology has made great contributions to rural development, this paper considers its urban relevance. We argue that the village’s identity is grounded, through agroecology as driver, in village development and response to socio-political adversity, utilising and perpetuating indigenous food and farming knowledge and establishing land rights. We hope this paper will stimulate new debate and future research. In particular research is needed on the transformative potential of agroecology and urban indigenous communities, to help us rethink the wisdom of the past in designing future solutions for urban development.



A farmhouse was built by using traditional techniques and recycled materials collected from the nearby urban construction sites.



A group of community college students on a field visit to Sa’owac village. In the lower area of the farmland ditches were dug to introduce streams of the river. Water spinach grows around these ditches, both in and by the water. The source of water also forms a natural fishing pond. One villager explained to students this integrated fish-plant symbiotic model. While initially most students thought these ditches were covered by weeds, they soon realised that they were edible plants.

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