wastewater farmers and NGOs working at field level, (b) to discuss the policy implications of the constitutional rights and obligations with local authorities involved in wastewater management, and (c) to do further research on legal issues in order to develop a better understanding of the legal framework regarding the right to clean and/or suitable water.

HYDERABAD

The Hyderabad Metropolitan Water Supply & Sewerage Board (HMWSSB), responsible for both drinking water supply and sewage treatment, is aware of the fact that wastewater is being used for agriculture. As part of the National River Conservation Plan, HMWSSB is at present implementing a plan to increase the sewage treatment facilities. However, HMWSSB does not seem to pay special attention to farmers that use wastewater.

With help from the "Forum for a Better Hyderabad", a local NGO, people from a downstream village filed a PIL against a project for the inter-basin transfer of industrial effluents to – ultimately – the Musi River. The people get their water from this river and were concerned that this project would increase the pollutant load of the river. The Andhra Pradesh High Court ordered a special committee to monitor the implementation of this project. It remains to be seen what the impact of the transfer of effluents will be.

NOTES

- 1 Excerpt from the 1995 Supreme Court case *Virender Gaur v State of Haryana*. Similar considerations are found in other cases.
- 2 The 1986 Supreme Court case Olga Tellis v Bombay Municipal Corporation.
- 3 It is estimated that east of Hyderabad, India, some 40,000 hectares of land are under irrigation with water of the Musi River (S. Buechler and G. Devi, 2002). Almost all domestic and industrial wastewater generated in Hyderabad is being discharged into the Musi without proper treatment.
- 4 India is a federal union, consisting of a number of states with a high level of independence. Every state has its own High Court.
- 5 The 1991 Supreme Court in the case Subash Kumar v State of Bihar.
- 6 But, as far as the author is aware, not specifically on wastewater quality.
- 7 A PIL about industrial environmental pollution in Patancheru, Andhra Pradesh, was filed in 1990. Thirteen years and large number of interim decision later, the case is still pending and the pollution problem stays unsolved.

Legal and Policy Aspects of Urban Agriculture in Tanzania

Urban agriculture in Tanzania is practised in a generally favourable political and legal context. During the 1970s and 1980s, the national government, faced with a poor economy, issued policies encouraging people to undertake urban agriculture.



The Ministry encourages and supports urban agriculture

These policies were issued to support urban dwellers to attain food self-sufficiency and to grow food to combat fast increasing inflation. Government and political leaders repeatedly urged urban dwellers to raise livestock and produce food in their backyards and other open spaces.

Under these policies, the Ministry of Agriculture and Food Security (MAFS) encourages and supports urban agriculture through its agricultural extension officers who offer non-formal agricultural education to urban dwellers. The government also set up an urban agriculture extension service in the 1970s under the Ministry in a bid to encourage urban dwellers to produce their own food. Currently, MAFS uses its urbanbased Agriculture/Livestock Extension Agents (ALEAs) to promote the raising of livestock and growing of crops. ALEAs visit urban dwellers and impart modern skills and knowledge (non-formal education) about agriculture so that they can increase their crop/animal production.

MUNICIPAL BY-LAWS

In the 1980s, at the municipal levels it

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was found that these national policies of encouraging urban agriculture, especially livestock keeping, also had some negative effect on the physical urban environment and on the operations of most urban councils.

It was time to review the existing municipal by-laws regarding farming in the town.

The first urban by-laws regulating the growing of crops and raising of livestock in urban centres were enacted already by the British colonial authorities in 1928 under Rule 16 CAP. 101 (Bylaws for

The National Policies in Tanzania that supported urban agriculture included:

- Siasa in Kilimo (Politics is Agriculture) of 1972
- Kilimo cha Umwagiliaji (Irrigated Agriculture) of 1974,
- Kilimo cha Kufa na Kupona (Agriculture for Life and Dealth) of 1974/75
- Mvua za Kwanza ni Zakupandia (First Rains are for Planting) of 1974/75.
- The National Economic Survival Programme (NESP) of 1981/82
- The National Food Strategy of 1982
- The National Livestock Policy (NLP) of 1983
- The National Agricultural Policy (NAP) of 1983
- The National Economic Recovery Programme (ERP) of 1986-1990.

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THE NATIONAL HUMAN SETTLEMENTS DEVELOPMENT POLICY OF 2000

Urban agriculture exists in most urban areas in both the developed and developing countries. As an economic activity, it provides income and employment opportunities to the urban populations, and a reliable supplementary source of food to urban dwellers at affordable prices. As a form of land use, well-planned urban agriculture creates a pleasant green scene.

Although urban agriculture is considered an important component in sustainable development, improperly practiced urban agriculture conflicts with other urban land uses and leads to land degradation, water pollution, and is a threat to health and safety.

THE GOVERNMENT SHALL

- ➤ Designate special areas within city planning where people will be granted legal rights to engage in agricultural activities;
- -> continue to regulate and research urban agriculture and will ensure that it does not disrupt planned urban development;
- ➤ review existing laws to facilitate planned urban agriculture; and
- ➤ facilitate construction of appropriate infrastructure to mitigate/prevent land degradation, water pollution, and health and safety hazards in areas where urban agriculture is permitted (United Republic of Tanzania, 2000).

Regulation of Cultivation and Keeping of Animals in Urban Areas).

These by-laws had three main objectives:
• to prohibit people of African descent from growing crops and raising livestock in urban areas;

- to prevent urban agricultural activities in urban areas, because it was thought to increase the presence of malaria-causing mosquitoes, especially crops taller than one metre; and
- to maintain a cleaner urban environment and sustain urban aesthetics by preventing people of African descent from growing crops in most of the towns' open spaces.

The essence of these by-laws is that growing crops or raising animals is allowed, if it is under certain conditions. After independence in 1961, most of these by-laws became moribund, but it was in the 1980s, that most towns and municipal councils found it necessary to revive these by-laws in order to regulate the growth of urban agriculture.

In Tanzanian towns, by-laws on crop cultivation distinguish between areas where the growing of crops is completely prohibited and areas where it is permitted. Growing crops is not permitted within a distance of 14 metres from road banks. As for river valleys, crop cultivation is not allowed within a distance of 15 metres from the riverbanks. The cultivation of annual crops is not restricted in these areas. For

permanent crops, however, written permission from the Municipal Director is needed. Other by-laws regulate the ways in which crops have to be cultivated, including for instance the use of machinery, planting time, use of inputs, weeding, use of certified seeds, planting on slopes, and how to act in case of plant pests or diseases. Yet other by-laws stipulate the penalties for not adhering to these regulations, including fines, imprisonment and destruction of crops.

Although these by-laws exist and clearly stipulate the penalties for defaulters, they are rarely implemented. For instance, it is common to see crops of all varieties planted in all municipal administrative wards, road reserves, riverbanks, public open spaces including children's playgrounds, and surveyed plots, rendering the by-laws 'toothless.'

In towns, by-laws on livestock keeping define "animals" as cattle, donkeys, goats, horses, mules, pigs and sheep. In other words, small livestock like chicken (local and improved varieties), ducks, rabbits and turkeys, very common in urban areas, are left out. Most town Council by-laws stipulate that they have to earmark certain areas as "specified areas" within the urban limits for the purpose of keeping animals or for grazing. The Councils issue special permits in respect of animals that are authorised within the given urban areas.

Yet, the by-laws do not specify the numbers and types of animals that urban dwellers are allowed to raise according to the density of the areas. By-laws forbid keeping animals outside "a building, structure or enclosure"; hence, holding animals in free range conditions is prohibited. Moreover, the by-laws do not allow animals to be kept "in a building or part of such building that is used for human habitation". Yet, people keep chicken, goats, and sheep in their houses. They could argue that chicken is not defined as an animal in the by-laws. Animals can only be moved with special permission from the Council. Most urban dwellers keep animals without a permit. By-laws which require urban dwellers to remove manure (solid and liquid) and other animal waste are never enforced. The fact that there are many senior

The legal context of urban farming is confusing for the urban farmers

government and ruling party officials among the livestock keepers who break the by-laws with impunity, is probably the best assurance for most other livestock keepers that they will not be punished for breaking the law.

CONCLUSION

The legal context of urban farming is somewhat confusing for the urban farmers. The national government pursued a generally favourable policy and even tried to encourage people to do urban farming during periods of severe economic recession. Yet, by-laws at the local level pose many restrictions to the practice. Many urban farmers appear not to know what is allowed and what is not. On the other hand, despite these regulations, enforcement is sparingly done and discriminatory in nature (the elite is less affected), councils lack funds and personnel to reach sprawling and sometimes unplanned urban areas.

REFERENCE

United Republic of Tanzania. (2000). *National Human Settlements Development Policy*. Ministry of Lands and Human Settlements Development. Dar es Salaam: Government Printers. p. 48.