

SUSPER

# Final summary report of SUSPER (Sustainable Development of Peri-Urban Agriculture in South-East Asia)

## *Rapport final de SUSPER*

Edited by  
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**Sustainable Development of Peri-urban Agriculture  
in South-East Asia Project**  
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## 1.6 Baseline Characterization of Urban and Peri-urban Vegetable Production in Phnom Penh

Author(s): Em Huy, Paule Moustier

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The main objective of the study was to appraise the constraints and opportunities of farmers in relation with their location in urban and peri-urban areas (land pressure, markets, labour, etc). Some secondary data was gathered about vegetable production in the municipality of Phnom Penh and in the provinces surrounding it. Interviews with resource persons and some field visits were organized to review the state of available information. A farm survey was conducted on a sample of 397 farmers distributed in Mean Chey, Dangkor, Russey Keo, Kien Svay and Saang, 149 of the farms being in urban districts and 248 farms in peri-urban districts. In the sample, 13 farms do not grow vegetables.

In 2002, Phnom Penh had an estimated population of 1,191,668 persons. Out of a population of 980,003 people in 2001, 353,096 (i.e. 37 percent) were farmers. The different farming areas have been identified and mapped, in particular in Phnom Penh and Kandal municipality, which supply the bulk of vegetables to Phnom Penh.

**Picture 5 - Production of water convolvulus in Boeung Tumpon waste water basin**



**Picture 6 - A tomato garden in Sikhotabong district**



@ P. Moustier

The suitable seasons for cropping in urban and peri-urban areas are the wet season from May/June to August/September and the dry season from November/December to late March/early April. The crops grown by farmers are very diversified (more than 40 crops mentioned by farmers, including 30 different vegetables). The major vegetables are cucumber, petsai, Chinese kale, lettuce and cauliflower. Vegetable farmers earn much higher incomes than non-vegetable farmers; and incomes in peri-urban areas, where land size is higher, are also higher than in urban areas. Crop yields and use of manure are low.

The major constraints mentioned by more than half farmers are, in order of importance, marketing problems, input costs, land shortage, floods and water shortages.

The survey shows some differences in the farm characteristics according to district. Dangkor is a specific district as it has more rice growing, more sandy soil, less floods but more water shortages. Saang has more diversified crops than the other districts. Kien Svay is a district with average characteristics relative to the other ones, in particular in terms of water shortages and floods. Saang and Kien Svay districts in Kandal are more suitable for vegetable production than urban districts in Phnom Penh because of water sources available (river/lake) and less constraints on land (excluding Dangkor from the comparison of land constraints).

To develop agricultural potential, irrigation systems need to be improved to ensure water for cultivation. Additionally, proper agricultural technologies must be launched at the village level to enable less seasonally dependent cultivation in and around Phnom Penh.

### **1.7 Peri-urban Small Livestock Production in the Kingdom of Cambodia: Bio-security in Poultry Production in Phnom Penh**

Author(s): Vincent Porphyre

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In Phnom Penh, local poultry production is facing increasing competition from Thailand in terms of final products as well as chicks and broilers. One key feature to stay competitive is the health status of poultry production. In-depth information on hygiene and bio-security measures, farming practices and sanitary events was gathered on four farms where blood analyses were performed on *Salmonella pullorum*, *mycoplasmosis*, Newcastle disease and infectious bronchitis.

The study highlights the poor hygiene management practices associated with the continuous in-farm circulation of pathogens. Primarily the lack of vaccinations, cleaning and disinfection programs, ignorance about veterinary aspects and absence of a farmer's organisation are to blame. However, a lack of funds to renovate sheds is also a factor.

The facts presented regarding the sanitary status and the risky management practices used on poultry farms can clearly provide encouragement for the Animal Health and Production Department of Phnom Penh municipality. Efforts should be centred on defining development programs to better support medium-scale poultry producers.

Training programs should be included that eventually link with the Royal University of Phnom Penh. Planning that supported a farmers' organization would allow definitive improvement of overall sanitation through better control of inputs (vaccines, feedstuffs, one-day old chicks) and outputs (eggs and meat). Additionally, a separate project could consider the creation of a unified Cambodian epidemiological surveillance network that has strong links with the NAHPIC laboratory.