

Production in Aquatic Peri-Urban Systems in Southeast Asia

INCO : International Scientific Cooperation Projects (1998-2002)

Contract number : ICA4-CT-2002-10020

**Institutional Analysis relating to Fish and Aquatic plants cultivation
in and around Ho Chi Minh City**

by

**Dr Lê Thanh Hung
Huỳnh Phạm Việt Huy
Nguyễn Thọ Thanh Trùng
Bùi Thọ Phương Thảo
Phạm Ngọc Tâm
Trần Văn Minh**

**University of Agriculture and Forestry
Faculty of Fisheries
Thu Duc
Ho Chi Minh City
Vietnam**

Keywords: Institutions, peri-urban, aquatic food, Southeast Asia, Hanoi, Vietnam

Project homepage: <http://www.ruaf.org/papussa>

Contract number : ICA4-CT-2002-10020

TITLE : PRODUCTION IN AQUATIC PERI-URBAN SYSTEMS IN SOUTHEAST ASIA

COORDINATOR

University of Stirling
Institute of Aquaculture
FK9 4LA Stirling
Scotland

DR. David Little
E-M : d.c.little@stir.ac.uk
TEL : +44 01786 467923
FAX : +44 01786 451462

CONTRACTORS

Royal Veterinary and Agricultural University
Department of Veterinary Microbiology
Bulowsvej 17
1870 Frederiksberg C
Denmark

DR. Anders Dalsgaard
E-M : ad@kvl.dk
TEL : +45 35282720
FAX : +45 35282757

National Institute of Hygiene and
Epidemiology
1 Yersin Street
4000 Hanoi
Vietnam

PROF. Phung Dac Cam
E-M : cam@ftp.vn
TEL : +84 4 8219074
FAX : +84 4 9719045

University of Durham
Department of Geography
South Road
DH1 3LE Durham
England

DR. Jonathan Rigg
E-M : J.D.Rigg@durham.ac.uk
TEL : +44 0191 374 7305
FAX : +44 0191 3742456

Research Institute for Aquaculture No. 1
Binh Bang
Tu Son, Bac Ninh
Vietnam

DR. Pham Anh Tuan
E-M : patuan@fpt.vn
TEL : +84 4 8781084
FAX : +84 4 8785748

University of Agriculture and Forestry
Faculty of Fisheries
Thu Duc
Ho Chi Minh City
Vietnam

DR. Le Thanh Hung
E-M : lthungts@hcm.vnn.vn
TEL : +84 8 8963343
FAX : +84 4 7220733

Royal University of Agriculture
Faculty of Fisheries
Chamcar Daung, Dangkor District
PO Box 2696 Phnom Penh
Kingdom of Cambodia

Chhouk Borin
E-M : 012898095@mobitel.com.kh
TEL : +855 12 898 095
FAX : +855 23 219 690

Kasetsart University
Department of Aquaculture, Faculty of
Fisheries

DR. Ruangvit Yoonpundh
E-M : ffrisrvy@ku.ac.th
TEL : +662 579 2924

Bangkhen, Chatujak
10900 Bangkok
Thailand

FAX : +662 561 3984

INSTITUTIONAL ANALYSIS – UAF GROUP

1. List of concerning institutions

There are many institutions involved in the formulation and implementation of the city development plans, including aquaculture development. The relationship between these organizations is very important to the whole progress of planning, implementation and monitoring of all the city development plans. All of those institutions can be listed as follows:

- The Ho Chi Minh City's People's Committee
- District Level People's Committees
- Department of Science, Technology and Environment
- Department of Planning and Investment
- Department of Urban Construction
- Institute of Urban Planning of Ho Chi Minh City
- Department of Agriculture and Rural Development
- Agency of Aquatic Resources Protection
- Agency of Plant Protection
- Center of Agricultural Research and Extension
- Agriculture/aquaculture Extension Office
- Agriculture Extension Station
- District Level Economic Office
- Farmers Associations/Gardeners Association
- Women Associations

The legal structure and relationships between these institutions is illustrated in Figure 1.

2. Roles and Functions of Institutions

Each of the listed institutions has different roles and functions in the overall planning process and more specifically relating to HCMC's aquatic production systems.

- Ho Chi Minh City People's Committee:

Only this the highest institution can issue final decisions and approvals for all formed development plans, which than will be approved by the Prime Minister before being implemented. The City People's Committee also supervises overall activities of the implementation process in order to make timely and appropriate adjustments. There are also many other organizations participating in many multidisciplinary meetings of the planning and implementing processes.

- District Level People's Committees:

They are able to issue decisions to implement all development plans targeted in the respective districts according to direct guidance from the City People's Committee; they are also responsible for supervising the implementation plans in specific areas as well as contributing important suggestions to the development plans of the city at specific areas

based on the particular circumstances with assistance from commune level, People's Committees and many other related agencies;

- **Department of Science, Technology and Environment:**

Conducts several scientific and advanced researches in order to derive new and applicable technologies for the development of the city; many suggestions from this institution would become goals and objectives of agriculture/aquaculture development plans made by the Department of Agriculture and Rural Development; assist the City People's Committee to assess the environmental impacts of any development projects in order to whether approve or not those project; also monitor the implementation of those approved projects;

- **Department of Agriculture and Rural Development:**

The main actor in formulating agriculture/aquaculture development plans; with the assistance of many sub-offices and stations at district and commune levels and the co-operation of related agencies, this Department is directly responsible for all activities related to agriculture/aquaculture. In the planning process, goals and objectives for agriculture development have to be approved by this institution before being approved by the City People's Committee. In principle, all the city plans that are related to agriculture/aquaculture areas will have to be considered with these institution references.

- **Center of Agricultural Research and Extension:**

Assisted directly by the Agriculture/aquaculture extension office; have many important functions and roles assisting the Department of Agriculture and Rural Development to accomplish its responsibilities. On-farm research and technology transfer according to the approved development plans are the main functions of this institution. Besides, the center frequently carries out trainings for farmers to improve farmers' ability to apply new technologies. Information about the prices of agriculture products is also given by this center to farmers. As working directly in agriculture/aquaculture activities, this Center can give many valuable suggestions about the applicable level of production systems that are promoted by the city' plans and about the appropriate systems should be demonstrated and disseminated for agriculture/aquaculture development. This institution is also responsible for monitoring the changes to the environment, mainly the changes of soil and water quality due to upstream construction activities and wastewater discharge that have impacts to agriculture activities in peri-urban districts in order to suggest appropriate solutions to ensure the production process and environment protection.

- **Agriculture/aquaculture extension office:**

Belongs to the Center of Agricultural Research and Extension. Directly responsible for extension activities and working with many agriculture extension stations at district level. This Office has a significant voice in the overall strategies of the Department of Agriculture and Rural Development through the Center of Agricultural Research and Extension.

- **Agriculture extension stations:**

Working directly with the Center of Agricultural Research and Extension at district level; directly responsible for implementation of agriculture development plans targeted in respective districts; many staff are in charge of doing demonstrations and technical transfer of new/promoted models/systems according to the agriculture development plans of the city that are made with their partial participations through the superior organization.

- **Agency of Aquatic Resources Protection:**

Belonged to the management of the Department of Agriculture and Rural Development; responsible for protecting natural aquatic resources in terms of quantity, quality, aquatic diseases; aquatic products production in terms of food security; inspecting and issuing products quality and quarantine certificate for export aquatic products. This institution does not have any role in decision-making within the planning process.

- **Agency of Plant Protection:**

Belongs to the management of the Department of Agriculture and Rural Development; responsible for both terrestrial vegetables and aquatic plants production in terms of technical support, pesticide control; quarantine of aquatic plants and vegetables, finding harmful organisms and preventative measures. This institution has a role in fining and banning the violating producers in terms of pesticides use.

- **Department of Planning and Investment:**

Participate in the planning processes of all branches of the city economy; this is a consultancy organization of the City People's Committee that is responsible for final decisions of development plans. All plans will be considered carefully by this institution based on the overall development goals of the city. It has very important roles in the planning process of the city.

- **Department of Finance:**

Participate in the planning process in order to balance the budgets for every branch accordingly to the overall development goals of the city.

- **Department of Urban Construction:**

The consultative organization of the City People's Committee that is responsible for the appropriate design and constructions of city's urban areas in order to archive the overall development goals of the city. Therefore, it plays an important role in making decisions of target areas for each of branches of the city's economy based on the development plans of every specific plan from respective departments.

- **Institute of Urban Planning of Ho Chi Minh City:**

Assisting and consulting the Department of urban construction in designing and mapping of all development plans of the whole city; conducting research on urban and rural planning and construction according to the requests of HCMPC and the Department of Urban Construction. The institute also offers consultative services to concerned persons and organizations. The specific plans at district level are also synthesized and mapped by this Institute. In general, this Institute does not have any roles in decision-making in the planning process but it participates significantly in the technical side of the planning process.

- **District Level Economic Office:**

Directly take care of all economic activities in respective districts; directly responsible for all economic development plans targeted in the district.

- **Farmers Associations/Gardeners Associations:**

Groups of farmers getting together to exchange experiences, to learn new technologies, to help each other and to voice to the government when necessary, usually at commune level. They can give suggestions to commune level People's Committees but their voices are rather light and only some might come further to the higher administrative levels of the city authority.

- **Women's Associations:**

Care for women's rights, health, difficulties and many other areas related to women's activities. They have many activities to support, assist and encourage women. They also have a significant voice to the city authority at all levels to protect women's rights and to form policies to support and improve women's living conditions.

3. Plans and policies for the development of the city, agriculture, aquaculture

- *Plans for socio-economic development:* increase investments of the industrial sector and trade and services sector; control the growth of population and try to keep the city population less than 10 million by 2020
- *Plans for urbanization:* target areas are all peri-urban districts including Binh Chanh, Nha Be, Hoc Mon, Go Vap, Thu Duc and District 9. Many inter-district roads regional highways have been proposed and some have been completed. According to the city plan, total urban areas will be 90,000 ha by 2020. In order to achieve that goal, almost all peri-urban districts have been proposed to be converted into urban areas, such as Thu Duc, Go Vap, Hoc Mon, District 12, District 9.
- *Plans for road construction:* new inter-district roads and regional highways will improve the connection between places within the city and between the city and other provinces. Therefore roads development is very important plan to be the basis of many other development plans of the city, especially for economic development.

- *Plans for small-scale industries reallocation*: 3000 industries will be reallocated by the end of 2004, some have already been moved and all will be moved to many industrial areas located in peri-urban districts in order to overcome the present industrial pollution within the domestic areas. Those former small-scale industrial areas will be used for public constructions such as parks, green areas, public buildings and ect.
- *Plans for maintainance and strengthenign of peri-urban agriculture in and around HCMC*: according to the overall city plan, the agriculture sector of HCMC will be very minor in the economy. Nevertheless, some areas have been reserved for agriculture development, which will not be taken for any of urbanization plans??. Although Binh Chanh district is the most likely concerned place for urbanization plans as it remains a large area of land that is currently being used as agricultural land, the reserved land for agriculture is still large in this district. However, they are not clearly assigned for any specific sector of agriculture. Therefore, reserved lands for aquaculture are still unknown. The existing areas of wastewater-fed aquaculture have been converted to either residential or industrial zones and they will continue to be converted. Cu Chi district is another place of reserved agriculture land providing this district many opportunities to strengthen aquaculture. Because Thu Duc, Go Vap and District 12 have been proposed to be completely converted to urban areas, aquatic plants including water spinach and water mimosa which are currently produced in those districts will be facing troubles.
- *Plans for city waste management and wastewater treatment plants*: two small projects done by Australia and Japan. Wastewater treatment and management for the whole city done by the US. They have been implemented and some outputs have been completed. The wastewater management project for the whole city has been approved. Some wastewater treatment plants have been built in many peri-urban districts (illustrated by planning maps)

4. Master plan to develop industrial plants

Industrial plants are located in the outer parts of the city where land is available for waste treatment plants. Many other criteria are taken into consideration when assigning places for industrial plants but the goal of separating industry from the city is the most concerned so that industrial wastewater can be treated and managed properly.

5. Wastewater treatment plants - JICA project

According to the EIA report of the project to “study on the detail designs, phase I” of the “water environment improvement project in Ho Chi Minh City”, the project is to identify the best design for the improvement of wastewater drainage and sewerage system for Ho Chi Minh City. The most important output is improvement of water quality in the drainage canals system and reduction of floods during the rainy season. The target areas for the project are many inner city districts where the population density is high and wastewater is heavily polluted. Outputs of the project will be delivered to those target areas, which may be seen as the project beneficiaries. Binh Chanh district is also involved partially by having some wastewater treatment plants in some of its communes.

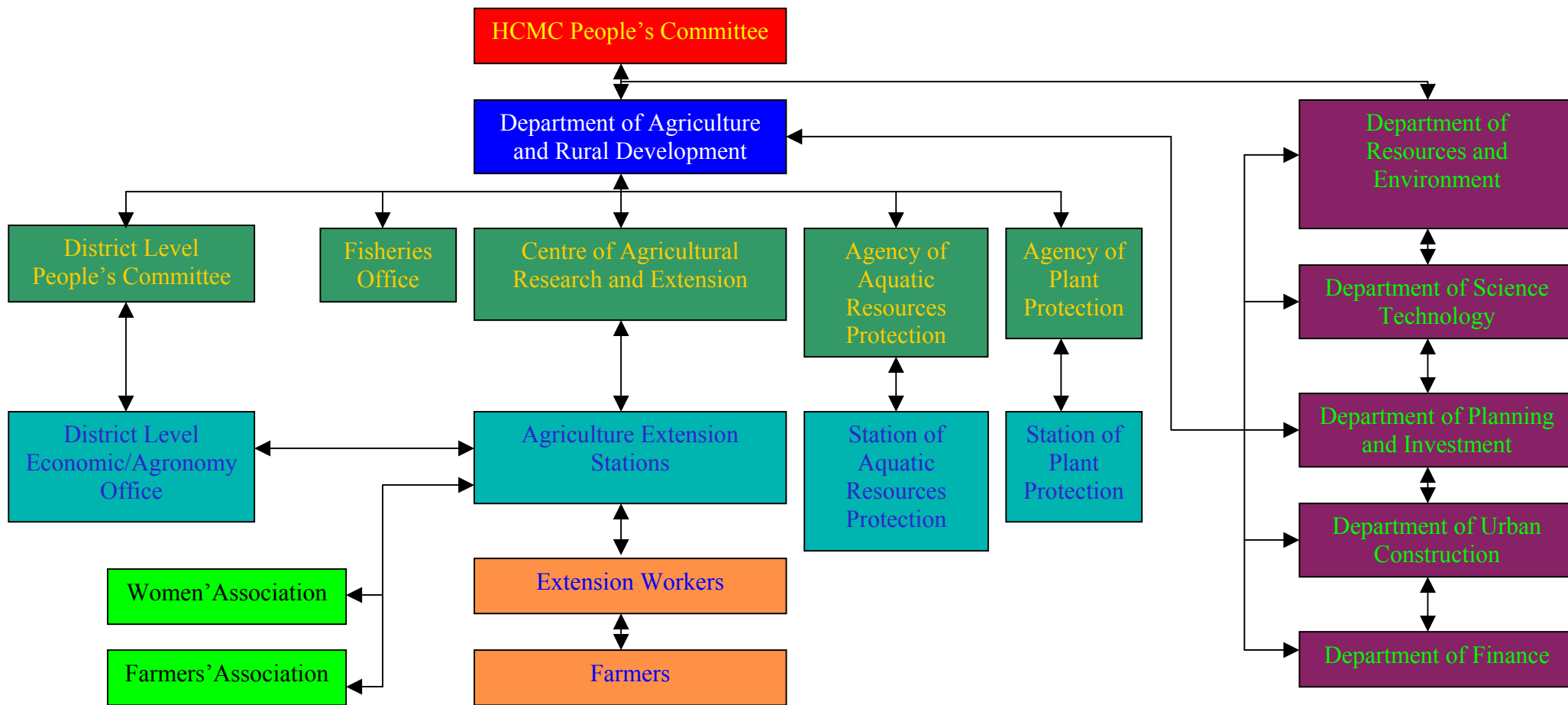


Fig 1. Schematic structure of institutions having relations to implement and develop PUAFPS

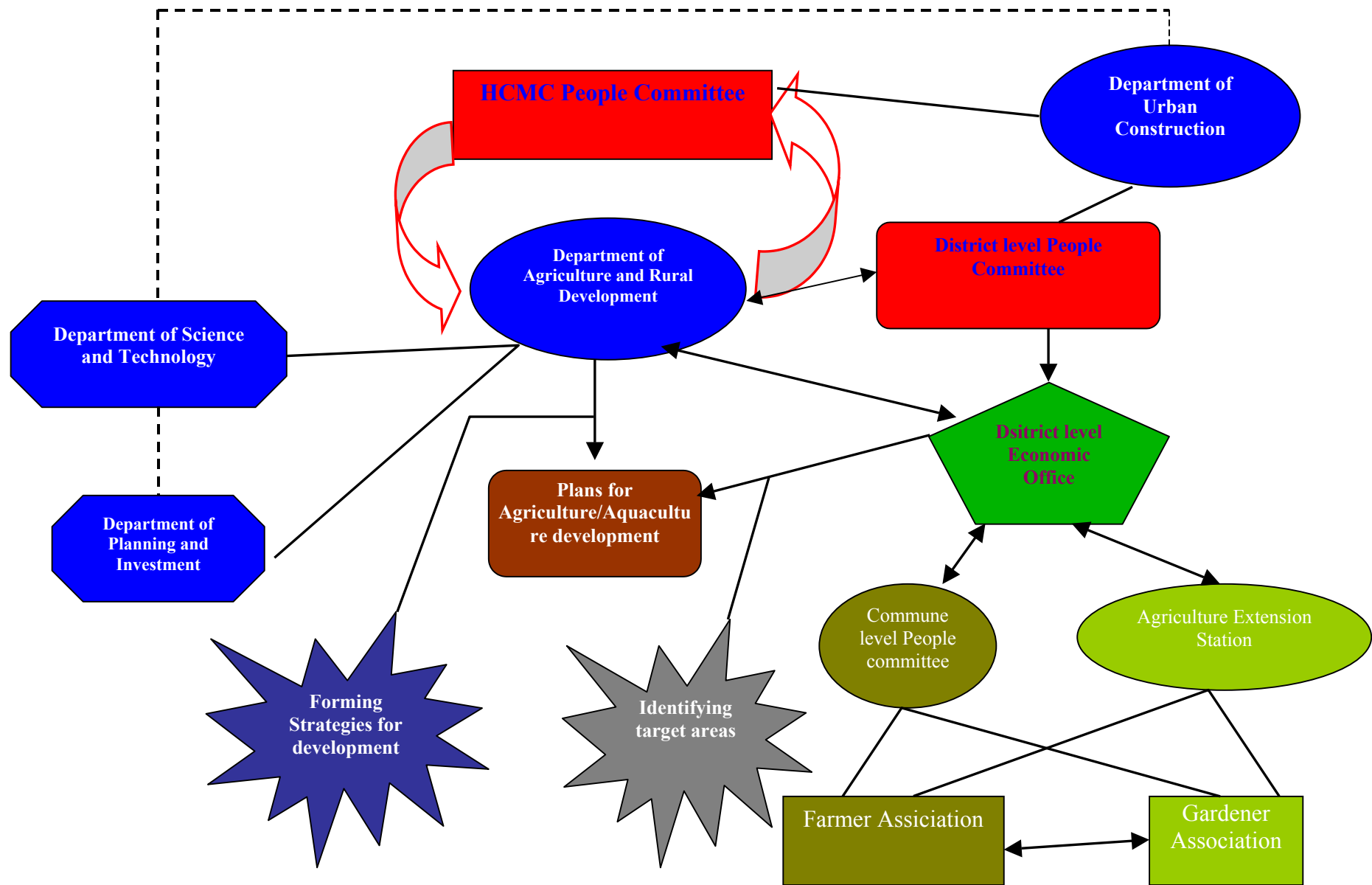


Figure 2. Flow chart of planning process and the relations between organization in this process

