



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
FAO/WHO COORDINATING COMMITTEE FOR ASIA**

Eighteenth Session

Tokyo, Japan, 5 – 9 November 2012

DISCUSSION PAPER ON EDIBLE CRICKETS AND THEIR PRODUCTS

(Prepared by Lao People's Democratic Republic)

Background

At the 17th session FAO/WHO Coordinating Committee for ASIA, the Delegation of Lao PDR introduced the proposal for new work on the development of a standard for crickets and their products.

The delegation of Lao PDR briefly introduced the document, and highlighted the importance of insects as food source in the region and provided information on their commercial production. The delegation noted that the new work would contribute to protect consumers' health and ensure fair practice.

The Coordinating Committee noted that insects were consumed in some countries and that there was a great potential and growing global interest for utilization of insects as food resource and generally supported the proposal. However, some delegations requested clarification as to the nature of the products to be covered by the Standard, the level of trade and the dimension of production. It was noted that these data were not available since most of the trade was in the informal sector.

The Coordinating Committee agreed that the discussion paper on new work on a regional standard for edible crickets needed further revision to address the specific comments made. Therefore, it agreed to establish an electronic working groups, open to all Members of the region and Observers and working in English only, to prepare revised discussion papers on the development of regional standard for edible crickets and their products based on Codex Alimentarius Commission procedural manual. The outcome of the EWG is to be presented for a new work to present to the 18th CCASIA session.

Procedure and outcome

In June 2011, Lao PDR invited all interested Codex Members and Observers to assist in this task by becoming members of the EWG and provide data on production volumes and trade volume of crickets and their products in their respective countries. Lao PDR received positive response to this invitation from Thailand, Vietnam and France. The EWG has received some data on the consumption of crickets from Thailand. Other than that no relevant information contributing to facilitating the development of a regional standard has been shared.

Recommendations

Since there is no available data about insect consumption and trade in the region such as:

- a) quantities and value of international or regional trade (exports and imports) of edible cricket products
- b) status of edible insects as human food in national food legislations
- c) recently published or ongoing research projects on safety or toxicology of edible insects or their products.

Lao PDR would like to seek advice of the Coordinating Committee on how to proceed with this task and complete the project document. Laos also would like to suggest that this task may be led by some other country namely Cambodia (who was the most supportive of developing this standard) or Thailand (having the highest production) or any other country who is interested in this task. Laos would be happy to support the development as co-lead.

Project Document
Proposal for New work on a Codex Regional Standard for Edible Crickets and their products
(Lao PDR)

1. The purpose and the scope of the standard

The regional standard for edible house crickets (*Acheta domesticus*) and their products will be elaborated to determine the specifications of the product and processes in order to ensure food safety, essential quality, hygiene and labelling requirements for the purposes of protecting the health of the consumers and ensuring fair practices in food trade. Proposed standard applies to both raw and semi-processed house crickets, produced by commercial cricket farming (breeding) for direct human consumption.

2. Relevance and timeliness

Due to the growing trend of consumption of edible house cricket (*Acheta domesticus*), its production by mass rearing technique, and its potential for international food trade, it is necessary to establish a standard to protect the health of the consumers and ensuring fair practices in food trade. It should be noted that Codex Alimentarius does not include standard for edible cricket, or any other edible insect products intended for human consumption.

The elaboration of the food standard for house cricket would be to the benefit of developing countries in particular, because these countries are the major producers, consumers and exporters of crickets and other edible insects. Lao PDR is also anticipating the potential and growing demand of edible insects in global food consumption and trade in the future. Any other existing or further developed edible insect product should also benefit from harmonized standardization although currently proposed for single product only.

2.1 Background

At the 17th session of Codex Coordinating Committee for Asia, the proposal for new work on regional standard for edible crickets and their products was introduced and the coordinating committee agreed that the discussion papers on new work on a regional standard for edible crickets needed further revision to address the specific comment made. The discussion papers on the development of regional standard for edible crickets and their products has been circulated in August 2011 to all interested Regional Codex members and observers to assist in this task by becoming members of the electronic working group (EWG) and provide data on production volumes and trade volume of crickets and their products in their respective countries. Lao has received some data on the consumption of crickets from Thailand, Vietnam and France. The EWG has received some data on the consumption of crickets from Thailand.

2.2 Criteria

According to the criteria for the establishment of work priorities and the guideline on the application of the criteria for the establishment of work priority applicable to commodities, there is not much trade data on crickets and currently most of the trade is in the informal sector, as a result there is absolutely no control on production and trade. It is expected that once standards are developed these will lead to much more control on production and trade.

3. Main aspects to be covered

The standard entails aspects related to food safety, quality and labelling requirements in order to provide certainty and safety to the consumer on the product of edible house cricket. The main aspects to be covered by proposed standard are:

- Specifications of the product, such as identification, description of products and processes
- Essential hygiene and quality factors
- Packaging, preservation and storage methods
- Labelling requirements
- Methods of sampling and analysis

4. Assessment against the Criteria for the Establishment of Work Priorities

General criterion

Purpose of proposed standard is to protect consumer's health and ensure the quality and food safety of proposed edible insect products. It is of particular importance to have harmonized and objective approach for

development of standard for a food item that has not been previously standardized which, in this respect, can be considered as a novel food group.

The elaboration of the standard for house cricket would be especially to the benefit of developing countries, because these countries are the major producers, consumers and exporters of edible house cricket. Edible insects are part of the diets in many developing countries, where they provide an alternate or additional source of food and nutrition security.

Criteria applicable to commodities

a) Volume of production and consumption and volume and pattern of trade between countries

Currently there is no reliable statistics of production and consumption volumes or volume and trade patterns between countries.

- In Lao PDR, recent survey initiated by the Food and Agriculture Organization of the United Nations (FAO) reveals that up to 95 % of Laotian population is consuming insects. Similar consumption patterns can be extrapolated to other regions in South-East Asia. Commercial production by mass-rearing of edible house cricket is currently widespread practice in Northern Thailand and increasingly popular in Lao PDR.
- In Thailand, The income from selling edible insects in three market were in the amount of 5000-6000 US\$ per month and the income of production were 4000-5000 US\$ per crop (45-50 days)

b) Existing national legislation

There is no existing national legislation covering any edible insect food products.

c) International or regional market potential

Although majority of edible insects globally consumed are still collected from wild environments, domesticated mass-rearing of certain species has recently gain wide attention as being more economical and ecological production system with high yields compared to traditional collection methods.

Entomophagy is widespread in different continents. It is estimated that 2.5 billion people, mainly in Africa and Asia are eating insects as common dietary habit. It is also anticipated that entomophagy will receive greater attention globally in the near future, also in food cultures that do not traditionally consume insects.

d) Amenability of the commodity to standardization

Parameters amenable for standardization include specification and identification of product, contaminant limits (pesticide residues, heavy metals, toxins), essential hygiene factors during the production and processing of the product, including packaging and transportation steps applying existing Codex Alimentarius documents.

Edible insects can be considered a novel food group under standardization and therefore it is particular importance to obtain harmonized approach from the beginning of the development of proposed standard, in consultation with other member countries in the region having interest in standard for edible house cricket.

e) Coverage under existing standards

There are no existing standards specifically or partially covering edible house cricket or their processed products.

f) Need of separate standards

Currently there is no need of any other separate standard other than the proposed, since the proposed standard will cover both raw and semi-processed products of edible house cricket and the hygienic conditions of production. It is envisaged that introduction of commercial scale mass rearing techniques for other insect species will create the need of further standardization in the future.

g) Work already undertaken by other international organizations in this field

None identified.

- FAO in Lao PDR and Government of Lao PDR initiated a project in 2010 '*Sustainable insect farming and harvesting for better nutrition, improved food security, and household income generation*'. While main outcome of the project is to enhance nutrition and food security status in the country with locally

rooted solution, project also has focus on encouraging both domestic and international trade while enhancing the food safety of edible insect products.

5. Relevance to the Codex strategic objectives

The proposal for new standard development meet the goals *1.1 -Review and develop Codex standards and related texts for food safety* as well as *1.2 -Review and develop Codex standards and related texts for food quality* of the Codex Alimentarius Commission Strategic Plan 2008-2013. Wider emphasis will be focused on food safety aspects of proposed standard.

Proposal also meets the objective set by Strategic Plan for CCASIA (2009-2014) 6.2 - *To identify specific food products of interest to the region that requires standard to be developed in order to protect the health of the consumers and ensure fair practices in food trade*. In reference to objective 4 - *To strengthen scientific and technical capacities of member countries in the region*, Lao PDR also proposes the scientific advice made available from FAO/WHO, linked to the development of proposed standard.

6. Information on the relation between the proposal and other existing Codex documents

The proposed standard will take into account existing applicable Codex guideline documents such as;

- Code of Practice General Principles of Food Hygiene (CAC/RCP 1-1969),
- Code of Practice for the Processing and Handling of Quick Frozen Foods (CAC/RCP 8-1976),
- General Standard for the Labelling of Prepackaged Foods (Codex Stan 1-1985),
- Recommended methods of Analysis and Sampling (Codex Stan 234-1999).

7. Identification of any need for any requirements for and availability of expert scientific advice

Currently there is no identified need for expert scientific advice.

Prior to submission of final project document to the review of Executive Committee, a statistical study of volumes and patterns of international trade of edible house cricket (and other edible insects) is required. To our knowledge, no such study has been performed by any member country or international body, and thus expert advice is likely needed to assess this data.

In reference to objective 4 of Strategic Plan for CCASIA, Lao PDR also proposes the scientific advice made available from FAO/WHO, linked to the development and drafting of proposed standard.

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for

Currently there is no identified need for technical input from external bodies.

9. Proposed time schedule

Subject to consideration by 18th session of FAO/WHO Coordinating Committee for Asia in 2012, proposal for standard development will be submitted for review by Codex Executive Committee in the beginning of 2013. As per proposed time schedule the process will take approximately five years.

Timetable	Body	Step
2012	18 th session of CCASIA	Consideration of the proposal by CCASIA
2013	Executive Committee (EXEC) and Codex Alimentarius Commission (CAC)	Critical review by Executive Committee and approval by Commission for new standard development at Step 5
2013-2014	Preparation of draft standard and circulation for comments	
2014	19 th session of CCASIA	Consideration of draft standard by CCASIA
2015	CAC	Adoption by the CAC as draft standard
2016	20 th session of CCASIA	Consideration of draft standard by CCASIA
2016-2017	CAC	Adoption as regional standard by CAC