

Report

On

International Conference on Legislation and Policy on the Use of Insect as Food and Feed in East Africa

March 2 – 3, 2016
The Vic Hotel, Kisumu, Kenya



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Objectives and goals of the conference

Goal:

To inform governmental regulatory authorities and other stakeholders, the importance of insects as food and feed to improve food and nutritional security in East Africa and the need to develop, adapt and strengthen legislations and policy to govern their use.

Objectives:

1. To create awareness among regulatory authorities on the role of insects as food and feed; and the need to develop and strengthen legislation and policy to regulate its application.
2. To share experiences and lessons among participants from Africa, Asia, Europe and the USA with regard to legislation and policy in the use of insects as food and feed.
3. Draft recommendations to inform policy on the regulation of insects for food and feed in East Africa.

Expected outcomes:

1. Awareness on the role of insects to improve food and nutritional security in East Africa enhanced
2. Global perspectives on the regulatory issues related to insects for food and feed discussed and opportunities to develop and strengthen legislations, policy and regulations in Africa highlighted.
3. Food and feed safety issues related to microbes, toxicity, allergens etc. are comprehensively discussed and R&D options that can facilitate removal of barriers to improve utilization are deliberated and recommended.
4. Biodiversity issues that may impinge on R&D activities in the field of insects as food and feed are discussed and recommendations on ways to remove such barriers highlighted/formulated.
5. Consumer concerns are comprehensively discussed and addressed and opportunities for R&D to minimize impact identified and recommended
6. Stakeholders concerns and expectations are addressed to secure investment.
7. Recommendations from the meeting are widely disseminated among stakeholders including media houses.

Executive summary

The *International Conference on Legislation and Policy in the use of Insects as Food and Feed in East Africa*, was held at The Vic Hotel, Kisumu, Kenya from 02nd-03rd March 2016 and was jointly organized by (ICIEP) Nairobi, and Jaramogi Oginga Odinga University of Science and Technology (JOUST) Bondo, Kenya together with international partners from University of Copenhagen, Denmark and Wageningen University, the Netherlands. The conference which was first of its kind in East Africa was collaborative initiative among four major research projects GREEINSECT, INSFEED, ILIPA, and ENTOFOOD funded by DANIDA, IDRC/ACIAR, WOTRO and BMZ/GIZ, respectively, with the aim of offering possibility to foster and strengthen multi-stakeholder dialogue and increase awareness among policy makers in East Africa. Build upon recommendations from the 1st international conference “Insects to feed the world” in Ede/Wageningen, the Netherlands, the conference highlighted the significance of insects as food and feed and the need to strengthen legislations and policy governing their use. Thus the recommendations of the conference are in line with the regional and global growing interest in use of insect as food and feed.

The conference was attended by 105 participants from 13 countries belonging to Academia, Research institutions and Private sector and Regulatory bodies in Kenya, Uganda, Denmark, Netherlands, Germany, UK, USA, Switzerland, South Africa, Thailand, Italy, Zambia and Canada. Although the majority of the participant were from East African countries (Kenya, Uganda), renowned and pioneering first class Scientist in the field of insect as food and feed from, the United Nations Food and Agriculture Organization (FAO), Research institutions and Universities in Europe, Asia, United States of America and South Africa participated in the conference and shared their experience with audience.

Seventeen post graduate students presented their finding on their on-g ing research on various aspects related to the use on insect for feed and food.

The conference was kicked-off by a field excursion on March 1st, to GREEINSECT's insect rearing facilities at JOUST, Bondo and the ICIEP research station in Mbita to inform participants about ongoing trials in cricket and Black Soldier Fly farming and wider activities of insect rearing in Africa.

In summary the conference concluded the following:

- The interest in insects as feed and food is gaining a considerable momentum, which has led to an increase in research projects, addressing knowledge gaps highlighted in previous related meetings
- On the African continent, Kenya (led by efforts from ICIEP and JOUST) has been developing as a local hub for research and development in this arena, it will be important to involve neighboring countries and partners in the efforts to strengthen the development.
- Industries for insect mass production, mainly on crickets for human consumption and black soldier flies for feed are gradually emerging. These are two of the most studied species and they can be used as the guidelines to develop insect inclusive legislation.
- Food and feed safety standards build upon current research, and should be established together with best practice behavior in order to ensure consumer safety along the production chain.
- Wild harvesting of some species for human consumption is popular in many part of Africa. Thus there is an urgent need to develop and enforce rules and regulation to protect biodiversity.

Session 1: Importance of insects to improving food and nutritional security – Strengthening legislation and policy to facilitate their use

This session focused on the importance of insects for food and nutritional, security specific to various regions, status of legislation and policy, consumer perception, and research and policy gaps pertaining to these topics. During this session four presentations, by participant from FAO, European Commission, Thailand and Uganda were presented.

During this session, the importance of insects as food and feed have been recognized and their crucial potential role in the field of nutrition and food security was also emphasized. Furthermore, the fact that the field is still in its infancy and it is still far from realizing its potential due to numerous knowledge gaps was also stressed. On an international level, the development of legislation depends on the demand by countries to develop the sector in their own country and foster export/import possibilities. This is of greater relevance for the feed sector, due to the volume and quality standards needed by the feed industry. Developing global standards like the FAO/WHO Codex Alimentarius depends largely on the increase of scientific evidence, that insects are a safe product for human consumption or as animal feed and evidence that significant trade is carried out.

The European Commission has actively been involved in drafting and recognizing insects into their legislation. From being perceived as a contaminant/hazard, insects as feed have been recognized as a potential source to contribute to protein security in the EU. The EU Commission is actively involved in changing legislation, but consumer safety is of upmost importance. Fundamental research is carried out to provide evidence for food and feed safety and will influence the further development of the sector.

The contribution from Thailand presented the rich tradition of insect consumption and vast experience in wild and farm harvesting as well as the different steps required for standard development. The presenter also indicated that the Thai authorities, research bodies, insect farmers and suppliers are currently developing a “Good Agricultural Practice” (GAP) Standard for cricket farming along the whole cricket production and processing value chain.

The last presentation of this session which was on the current state of insects and their importance on the African continent has highlighted the regional differences and in insect consumption. The need to develop legislation and standards was highlighted to protect wild insect populations and consumers from an uncontrolled market expansion. Regions with similar traditions should be encouraged to work together to develop standards together in order to enable possible trade.

Session 2: Consumer perceptions

Consumer perception of insects has been one of the most discussed topics in the use of insect for foods and feed, and therefore this session was devoted to address this important issue. As such the presentations of this session focused on nutritional and health benefits of insect consumption and research gaps still to be addressed to make the nutritional values more comparable and assess nutrient absorption. Processing options for insects as well as packaging and labeling of insect and insect product to inform consumers about the product was discussed and was highlighted as an aspect important to consider, when drafting legislation.

One of the major highlights of this session was looking at the use of insect for food from chef's perspective. The contribution by the head chef from Nordic Food Lab, Copenhagen, Denmark had given the topic extra attention. During his presentation the head chef highlighted the use insect in modern cuisine in a manner that it is delicious, acceptable and palatable to the consumers. Developing products for the African market will depend largely on consumer preference for these new products and how information about these products and its production is conveyed.

Session 3: Food and feed safety; sanitation and pathology; biodiversity

The third session of the conference focused particularly on food and feed safety issues related to microbes and chemicals, disease constraint in insect mass production as well as sanitation. Lessons from other parts of the world and their relevance to East Africa were highlighted.

The importance of hygienic practices and standards was highlighted by the speakers to minimize microbial risks and the spreading of diseases in insect colonies. The establishment of insect disease diagnosis and adequate treatment practices was suggested as strong contribution academia can provide to the private sector to develop legislation.

During this session opportunities and harmonization of policies among regulatory bodies on national level in relation to biodiversity access were also addressed to ensure species level and genetic biodiversity and protect ecosystems biodiversity.

Session 4: Industry expectations

The forth session which addressed industry expectations on the use of insect for food and feed, was focusing on commercial opportunities related to the use of insects especially Black Soldier Fly larvae for feed production, technological and legislative barriers to access utilize opportunities, as well as suggesting recommendations to overcome barriers.

One of the presentation highlighted the fact that the interest of the private sector utilizing insects as food and feed is on the rise, however, they are some challenges. In a separate presentation during this session the participant were also informed about the current undertaking of cricket farming for human consumption in Kenya.

Session 5: Research for Development to support production, legislation, policy

The final session of the conference highlighted activities related to the on on-going and new research for development projects carried out in Kenya to address knowledge gaps. As such the main focus of this session was to share with the participant the project objectives, accomplishments made so far by these projects and the project focus in relation to policy and legislations, as well as complementarities, cross-cutting activities and opportunities of collaboration with regional and international partners.

Student Poster Session

During the conference seventeen postgraduate students (M.Sc and Ph.D) presented their ongoing research work on various aspects on the use of insect for food and feed. These include but not limited to: learning from examples in Thailand, utilization of farmed edible crickets (*Acheta domesticus*) to improve child nutrition in Kenya, analyzing social acceptance of foods from edible insects requires new thinking, prospects and challenges of insect-driven feed: Black soldier fly (*Hermetia illucens*) as a model species, Farmer demand for purchased poultry and fish feed in Kenya, Acceptance of insects as an alternative protein source for poultry and fish feeds in Uganda, Crickets feed resources: Current practices and constrains, Market Potential for Edible Insects as Feed in Kenya.

Conclusion

The meeting brought together a wide range of stakeholders and offered opportunity to exchange knowledge about insects as food and feed from the African continent and international partners. Having a focus on Eastern Africa allowed the speakers to tailor their message to the audience, on what they learned from their work and give recommendations specifically to be taken up in the region. Bringing together a wide range of involved policy makers from Kenya and neighboring countries gave participants to network and establish further contacts.

The aspect of legislation and regulations on their daily work was addressed by presenters in order to express progress and gaps in the including insects into the main stream market, and shared their perspective on issues needed to be addressed. Insects as interdisciplinary topic with the components of feed and food, is touching many sectors and fostering the exchange between research projects, private sector and governments is therefore important in order to work together for insect inclusive legislation.

Participants acknowledged the need to continue the exchange over project boarders in order to give advice to policy makers and establish a forum, like follow up stakeholders workshops, to inform policy, establish standard, exchange state of the art knowledge and developments in this dynamic sector.

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Conference Report

International Conference on Legislation and Policy on the Use of Insect as Food and Feed in East Africa



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On behalf of
Federal Ministry
for Economic Cooperation
and Development



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