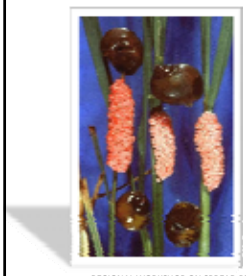
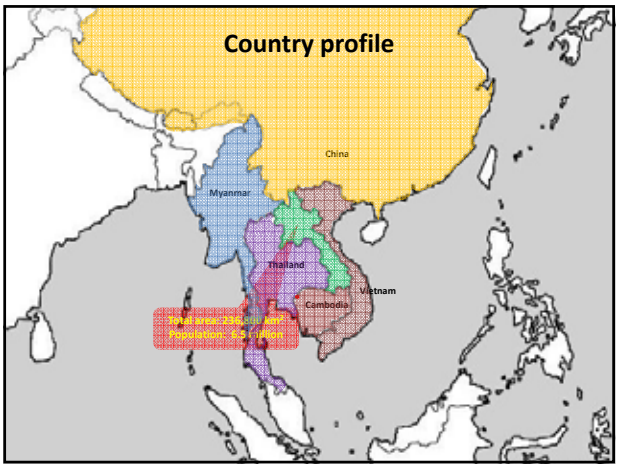
Spread Prevention & Control of Apple Snail In Laos



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REGIONAL WORKSHOP ON SPREAD PREVENTION AND CONTROL OF APPLE SNAIL (*Pomaceae* spp.) IN RICE
3-7 December 2012 Kuala Lumpur, Malaysia



Current Status of Rice Production in 2011

Year	season	Harvested area (ha)	Damaged area (ha)	% of extent damage by GAS
2011	• *Rain-fed* • *lowland Irrigated rice*	*705,040* *598,358*	*97,135* *96,307*	??? ???

Source: Planning Division, Department of Agriculture

GAS Situation in Laos

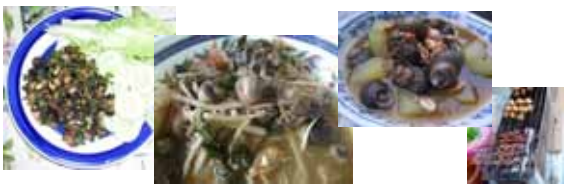
- Golden Apple Snails (GAS) *(Pomacea spp) were first introduced from Thailand into Sikhotabong* District of Vientiane Capital in 1991 and spread to three villages, namely Viengsavanh, Nahai and Phosi.
- The first damage to lowland rice fields was reported in 1992. A few years later (1994), they were brought from Vietnam to the Northern Provinces of the country, mainly as a source of food.

GAS Situation in Laos (Cont.)

- Since then GAS have spread to 10 of 17 provinces of the country, mainly by way of connecting waterways, such as irrigation canals and rivers, as well as by people.
- GAS does most damage to young rice seedlings (seedbeds up to 20 days after transplanting), and consequently fields infested with GAS have to be replanted several times in order to replace the missing seedlings.
- Presently, GAS is considered a major pest in the rice ecosystems of Laos.

Utilization of GAS

Utilization	Percentage (%)
- Food	**85**
- Farm animal feed	**14**
- Liquid bio-fertilizer/compost	**1**



Management guidelines

- in Laos damage by GAS is prevented by collecting them in the fields, but inefficient in several areas, and due to labor constraints, farmers turn to unspecific chemicals for help (*e.g. Niclosamide or Baylucide, and Copper sulfate*). These chemical products however pollute water and are a serious threat to other aquatic organisms as well as to the health of the people working in the paddy fields.
- Moreover, the Lao Government has developed several different control techniques focused on integrated apple snail management (e.g. preventing the entrance of the snails to the rice fields, hand picking, transplanting old seedlings, reduction of water levels in the rice fields and using a variety of local expériences)
- In recent years, there are claims that apple snail infestation has decreased due to the spread of integrated management approaches which are being promoted through Farmer Field School training design

Conclusions

- The prevention and management of GAS in Laos are still at the infancy stage due to the lack of qualified staff, financial constraint, the short of appropriate information, and the lack of legal framework,
- Promotion and development of the economic incentives on the sustainable use and conservation of national biological resources, specifically on the indigenous species;
- Promulgation of appropriate legislation, particularly related to the introduction of invasive alien species, emphasizing on the cooperation and support of local communities;
- Strengthen capacity of local staff, specific on taxonomy, tropical botany and zoology;

Conclusions (Cont.)

- Establishment of National Network or Working Group related to the prevention and management of GAS;
- Promotion of researches on the positive and destructive impacts of GAS, notably on the destructive effects of invasive alien species; Promotion of awareness on the destructive impacts of GAS at all level of the Lao society and at school;
- Creation of the National Biodiversity Conservation Fund in order to effectively address the GAS in a sustainable manner;
- Cooperation with relevant institutions at the sub-regional, regional and international level related to this issue, such as information sharing, capacity strengthening and collaboration of research.

Thank you for your attention !