The AVRDC-ARC in Bangkok, Thailand has a workforce of 24 staff members. This AVRDC-ARC 2008 Annual Report includes an account of research activities conducted at the ARC Research and Training Station:

i. **Tropical Organic Farming** Recognizing the economic importance of managing flea beetle (*Phyllotreta flexuosa*), ARC initiated a research to identify sustainable management practices to minimize loss from flea beetle under organic farming system.

ii. **Mungbean Breeding** Mungbean normally has closed flower form known as cleistogamous that is suited for self pollination. This is a barrier to produce hybrid seed. To improve the outcrossing rate in mungbean, developing the open form morphology (chasmogamous) is being pursued, using inter-species crossing and gamma radiation.

iii. **Callosobruchus spp./Bactrocera spp./Maruca vitrata** Studies into the genetic basis for bruchid resistance against *Callosobruchus chinensis* L. and *C. maculatus* F. in mungbean were conducted. Reaction to both species indicated monogenic inheritance of the resistance. Seeds of both resistant combinations showing complete resistance to both bruchid species were selected. Three species of Tephritidae were recovered from ripe fruits of *Terminalia catappa*, namely: *Bactrocera dorsalis*, *B. correcta*, and *B. latifrons*. Three species of parasitoids were reared from the tephritids infesting Malabar almond, namely *Diachasmimorpha longicaudata* (Ashmead), *Fopius arisanus* (Sonan) and *Psyttalia sp.* Farmers often applied chemical insecticides to control *Bactrocera cucurbitae* in bitter gourd. This fruit fly was also recovered from ivy gourd. In addition to looking for resistance to *Maruca vitrata* in 113 accessions of mungbean, it was determined that *M. vitrata* from *Sesbania grandiflora* displayed no sex differences in the frequencies of 3 background colours of yellow with spot, green, and pink.

iv. **Variation in Antioxidant Activities of Indigenous Vegetables Caused by Cultivation and Storage**. Pak-paew (*Polygonum odoratum*) and pak-kayang (*Limnophila aromatica*) grown under organic-farming showed higher antioxidant activity compared to plants grown under chemical fertilizer-farming. The leaf extract of pak-paew showed highest antioxidant activity, followed by shoot and stem. The shoot extract of pak-kayang showed highest antioxidant activity, followed by leaf and stem. Pak-paew grown at the ARC Research and Training Station showed higher antioxidant activity as compared to those grown under farmer’s practice. The antioxidant activity of pak-paew and pak-kayang showed no significant difference at 10, 30 and 60 minutes after harvesting.

AVRDC-ARC successfully completed a year of implementation of activities of the IFAD-funded Safe and Off-season Vegetable Production. The outcomes of the Farmer Field Schools suggest that farmers benefitted from increased income. To consolidate the gains and to sustain the benefits, farmers responded positively to the Participatory Technology Development (PTD). The benefits of using trapping, trellis, grafting and non-chemical methods of pest management have resulted in higher incomes for farmers. Baseline surveys were conducted in both Tra Vinh and Ha Tinh provinces, Vietnam.

In 2008, the AVRDC-ARC co-organized a one-week regional training course on Good Agricultural Practices (GAP) with RMIT University, funded by the ASEAN-Australia Development Cooperation Program Regional Partnership Scheme. The 26th Regional Training Course (RTC) was successfully completed in January 2008 and a final report was produced at the end of the course. Two modules of the 27th RTC were completed by the end of 2008. A list of concept notes, activities associated with fostering regional and international relationships, list of seed shipments handled by ARC, inventory at both the ARC Administrative Office and the Research and Training Center, uploads on the ARC website, visitors and other related administrative matters, including the financial statement were reported. The report closed with work plans for 2009, 2010 and 2011 linked to the Research Themes of AVRDC-The World Vegetable Center.