

# ANNEX I

Details of Major Areas of Research, Development, Information, Training and Extension Focus and List of Projects Involving Keith Chapman, while engaged as FAO/RAP Industrial Crops Officer, Bangkok, Thailand 2000-2005.

## **FAO work plan entities and outputs**

### **1. Alternative crops and cultivars for new opportunities**

- Integration of fragmented knowledge on lesser-known plants with localised and/or international potential as crops.  
(Collection of information on 20 lesser-known medicinal and aromatic plants for the EcoPort database, complete. On-going activity for more plants).
- Information on crop development potential of 40 under-utilised species delivered through the internet and newsletters.  
(On-going improvement of the approaches to matching of plants to land for both well-known and lesser known species).
- Assessment and promotion of high-value crops for distinct agro-ecological environments.  
(High-value crop cultivars identified and developed in specific ecologies).

### **2. Strategies and technologies for sustainable crop and grassland production systems**

- Introduction of improved cropping systems for increased and sustainable crop productivity in tropical environments.  
(Worked with coffee, black and white pepper, coconut, horticultural crops, sweet sorghum and vetiver).
- Dissemination of information to member countries through selected crop/grassland databases.  
(Contributions via FAO and EcoPort databases on medicinal plants, sweet sorghum and fruits and industrial crops in general).

### **3. Facilitating plant production and protection decision making**

- Plant production and protection decision support and modular data products.  
(Prepared manuals with colleagues, counterparts and consultants on sweet sorghum and pepper (*Piper nigrum* L.), coffee in Lao, and Myanmar, book on Fruits of Vietnam, assisted with GAP and GMP coffee manuals for Vietnam, and updating of GAP/GMP for coffee in Thailand. Funded and advised on production of a series of coloured publication on Amazing Thai Fruits, Amazing Thai Spices, Herbs, Medicinal Plants and Native Fragrant Flowers. Made regular key contributions and provided support to major meetings and conferences and seminars on coffee, coconut, oil palm, cocoa, medicinal and aromatic plants, Lychee, Longan and Rambutan and Sapindaceous fruits, vetiver and sustainable agriculture for food, energy, and industry).

### **4. Advice to member countries and support to the field programme**

- Technical support services to the field programme and Special Programme for Food Security.  
(As a member of the 22 RAP Country Task Forces for the region, regularly attended Task Force meetings, and offered technical advice and analysis on an ad hoc basis at such meetings and in response to specific requests. Also responded to field programme development of specific projects and studies prepared in such countries as Timor Leste, China, Sri Lanka, Vietnam, Bhutan, Myanmar, Thailand, Lao, Cambodia, India, Indonesia, Afghanistan, Bangladesh, Greater Mekong Sub-region, Maldives, Pacific Island nations, etc. Technical backstopping support and management supplied to all projects listed below on a regular basis during implementation. Provided advice on a regular basis in response to direct requests from member countries).
- Technical support to emergency and relief operations projects related to crop production.  
(Specific assistance given to rehabilitation programmes in Timor Leste, and to Tsunami affected regions of Thailand, Sri Lanka, Maldives and Indonesia).

## **Thematic areas**

In the course of employment with FAO identified the following key thematic areas for development for high value industrial and horticultural crops for Asia/Pacific Region, namely:

- Matching Plants to Land (Climate, soils, water supply, slope and aspect)
- Interactive IT Packages of Technology for High-value Crops
- Cold Tolerant Oil Palm development for isolated communities in Asia.
- Bio-fuel/Bio-energy and Multipurpose Crops for Asia/Pacific.
- Coffee Quality Improvement.
- Pepper Quality Improvement
- Virgin Coconut Oil and Products-Technology Development and Outreach.
- Sustainable Crop Production practices.

## **FAO Projects formulated, implemented or being implemented with involvement of Keith Chapman**

**Note:** The approach adopted to project development in any given country was to do an overview of industrial and or horticulture hi-value crops in that country, followed if necessary by a sector study, to clearly identify crop and development priorities, issues, problems and constraints. Priority projects were then identified, formulated, funded and implemented.

The initial overview may or may not have included a 'Matching of Plants to Land' depending on existing information, the need and the country, to identify commercialisation opportunities of given crops in given regions. This approach was initially developed for horticultural crops by myself some 20 years ago and has been gradually improved upon and extended to include high-value industrial crops. A decision tree model for selection and successful commercial development of high-value crops for various agro-ecological regions has been developed. The challenge now is to link the simple data sets to GIS shells containing country specific infrastructure, soils, climate, resources, demographic data, topography etc., based on the ACT Acclimatisation Tools developed originally by CIMMYT, to present the data visually for holistic planning and subsequent crop development.

## **Project list**

1. ADB. NW Crop Diversification Project. Participated in Design and Feasibility involving Hi-Value crops, R&D capacity building and extension components with FAO Investment Centre. Loan: BAN 32193-01. 2000. USD 46.3 million.
2. Development of Sweet Sorghum for Grain, Sugar, Feed and Fibre and Value-added By-products in Arid and Saline/Alkaline Regions of China-TCP/CPR/0066. Project formulated by Peter Griffie and self in collaboration with national personnel. March 2001-Dec 2002. USD369,500.
3. Improvement of Coffee Quality and Prevention of Mould formation and Ochratoxin A (OTA) Contamination of Coffee in Vietnam. TCP project document prepared by self in collaboration with national personnel and FAO Rome. Sep 2002-April 2005. USD 372,000.
4. Integrated Pest Management of Coconut Leaf Beetle (*Brontispa longissima* Gestro) in Vietnam. TCP/VIE/2905. Project document prepared by self in collaboration with national personnel and WilcoLiebregts consultant and FAO staff in Vietnam. Dec 2002 –April 2005. USD350,000.
5. Enhancing Livelihoods and Income Generation of Myanmar Coffee Smallholders through Development of Value-added Coffee Improvement Interventions. TCP/LAO/2903. Formulated by self and Anthony Marsh. April 2003-May 2005. USD282, 000.
6. Support to the Implementation of the National Development Plan in the Agriculture Sector. Timor Leste. TCP/TIM/2902. Formulated by myself with Lingfeng Xu, and others of FAO/RAP staff. USD 234,000. April 2003-March 2005.

7. Integrated Pest Management of coconut hispid beetle (*Brontispa* sp.) in the Maldives. TCP/MDV/2904. Formulated by Wilco Liebregts, consultant and self. Sep 2003-Aug 2005. USD200,000.
8. Enhancing Livelihoods and Income Generation of Lao Coffee Smallholders through Development of Value-added Coffee Improvement Interventions. TCP/LAO/2903. Formulated by Keith Chapman and Anthony Marsh. Dec. 2003-November 2005. USD346,000.
9. Improvement of Coffee Quality and Prevention of Ochratoxin A on Robusta Coffee-Thailand. TCP/THA/3002. Formulated by self and FAO Rome staff and national staff. March 2004-Feb 2006. USD368,000.
10. OPEC Oil Seed Crops in Myanmar. Assisted with design and FAO implementation proposal. Approved. Nov. 2004. USD 6.3 million.
11. Improvement and Development of Fruit and Vegetable Crops in Lao PDR. GCP/LAO/013/ITA Formulated by Ted Winston and Keith Chapman. Approved Sep.2004-2007. USD 749,980.
12. Improving Oil Palm Research, Development and Production in Myanmar. TCP/MYA. Formulated by Ricardo Escobar and self. Approved for April 2005-March 2007. USD228010.
13. Integrated Pest Management of Coconut Hispine Beetle (*Brontispa longissima* Gestro) in Thailand. TCP/THA/3003. Funded and participated in formulation of project with Wilco Liebregts. Fast Track USD 55,000. Commenced Sep. 2004.

**Other projects implemented or being implemented with some technical inputs from Keith Chapman**

1. Integrated Horticulture and Nutrition Development Project. Bangladesh. GCP/BGD/97/041. UNDP funded. 2000-2005. USD3.449 million.
2. Development of Fruit and Vegetable Crops in Lao PDR. GCP/LAO/013/ITA Formulated by Ted Winston and Keith Chapman. Approved Sep.2004-2007. USD 749,980.

**Projects formulated with technical inputs from Keith Chapman and others, awaiting funding or approval for implementation**

1. Development of an Interactive Technology Transfer Information System for Coconut in the Asia and Pacific Regions. Project Proposal prepared for funding with Asian Pacific Coconut Community and Queensland Department of Primary Industries Australia. Donors still being sought. 2001. USD 362,420 over 2 years.
2. Enhancing Livelihoods and Income Generation of Coconut Smallholders Through Development of Cold Pressed Value-added, Organic, Coconut Oil and Coconut Oil Products in Thailand, Vietnam, and Myanmar. Regional TCP project document prepared by in collaboration with national staff, and submitted to Rome for funding approval. 2002. USD 378,780. FAOTCP/Pipeline.
3. Development of an Interactive Technology Transfer Information System for Pepper (*Piper nigrum* L.) in the Asia and Pacific Region. Project Proposal prepared for funding with International Pepper Community, Jakarta, Indonesia and Queensland Department of Primary Industries Australia. Donors being sought. 2001. USD 362,420 over 2 years.
4. Improving Smallholder Farmer Incomes and Livelihoods Through Development of an Interactive High-value Crop, Technology Transfer Information System for Developing Countries in the Asia and Pacific Regions. Project proposal prepared with Queensland Department of Primary Industries Australia. Donors sought. 2005. USD 3.6 million over 4 years.
5. Matching Plants to Land—Coconut Production Areas for Asia and the Pacific in collaboration with COGENT/IPGRI. 2001/2002, USD 360, 710. Donors sought.

6. Quality Improvement of Pepper (*Piper nigrum* L.) and Promotion of IPC Quality Standards, Test Method and Guidelines to aid Smallholder Pepper Producers in Asia/Pacific Region. TCP/RAS. Formulated in collaboration with Int. Pepper Community. 2004. USD329, 200. FAO/TCP Regional Projects pipeline.
7. Smallholder Livelihood Enhancement and Income Generation via Improvement of Pepper Production, Processing, Value-adding and Marketing Systems and Enterprise Diversification, in Indonesia, Vietnam and Sri Lanka. TCP/RAS. Formulated in collaboration with government agencies of Sri Lanka, Vietnam and Indonesia. 2004. USD 387,650. FAO/TCP Pipeline.
8. Production of Cold-Pressed Organic Coconut Oil and Value-Added Products for the Enhancement of Livelihoods and Income Generating Opportunities of Community Island Groups in the Maldives. TCP/MDV. Formulated at Govt. request. 2004. USD 386,700. FAO/TCP Pipeline. Priority # 2.
9. Floriculture Development. Vietnam. TCP/VIE/. Formulated by Eddie Vernon and self at GOV request. 2004. USD372, 565. FAO/TCP Pipeline. Priority # 2.
10. Improvement and Development of Fruit Crops in Cambodia. GCP/CAM/.../ITA. Formulated by Ted Winston and self at Govt. request. 2004. USD 750,000. FAO Pipeline Priority #1 for Italian funding.
11. Assisted with funding for a consultant to assist Lao PDR with project formulation of a Nutrition/Horticulture/Home Gardens/School project for Japanese donor support-USD 1.0 million. Approval imminent.
12. Post Harvest Loss Reduction in Oecussi District of Timor Leste. Proposal Prepared for EC Funding at request of UNDP. 2003. USD842, 900. Not funded to date.
13. Enhancing Livelihoods and Income Generation of Coconut Smallholders through Development of Cold Pressed Value-added Organic Coconut Oil and Coconut Oil Products in Timor Leste. Proposal Prepared for EC Funding at request of UNDP. 2003. USD1, 227, 640. Not funded to date.
14. Enhancing Livelihoods and Income Generation of Coconut Smallholders through Development of Cold Pressed Value-added Organic Coconut Oil and Coconut Oil Products in Timor Leste. TCP/TIM. Alternate proposal prepared at request of Government of Timor Leste. 2004.USD357, 000. FAO/TCP Pipeline.
15. Pilot On-farm Demonstration of Small-Scale Equipment for Improvement of Pepper Quality in Sri Lanka, with International Pepper Community. USD 9,800. Pipeline.

***Smaller project initiatives, studies, publications, meetings, seminars etc., funded and implemented by Keith Chapman***

1. Assisted Lao PDR with funds and formulation of an intervention strategy to import and release the Coconut Brontispa Beetle parasitoid and train personnel. With Wilco Liebrechts and Dr. Tran Tan Viet. USD 6,000.
2. Assisted Hainan Island China, with funds for formulation of an intervention strategy to import and release the Coconut Brontispa Beetle parasitoid and train personnel. With Wilco Liebrechts. USD 3,000.
3. Funded and provided technical editing of a new book Pepper (*Piper nigrum* L.) Production Guide for Asia and the Pacific and Interactive CDROM in collaboration with International Pepper Community, and member country authors.USD15,000.
4. Funded and provided technical editing of a book on Fruits of Vietnam, prepared by Narong Chomchalow and Vietnamese counterparts. Now entered into on-line www.ecoport.org world database and FAO www.fao.org database. USD5,000.
5. Initiated R&D with Thailand Institute of Scientific and Technological Research (TISTR) on production of Virgin Coconut Oil and downstream products, and evaluation of locally produced oil expellers-USD 24,900.

6. Initiated, funded and implemented an Outreach Programme with TISTR, and the Thailand Dept. of Agriculture/Horticulture Research Institute, to extend Virgin Coconut Oil technologies to Chumphon Hort. Res. Centre and Department of Agricultural Extension district staff and villages in S. Thailand, using a coconut product specialist from Philippines Coconut Authority. USD 12,000.
7. Funded and supervised 'A Review of the Coffee Sector of Myanmar' by Anthony Marsh and Okkar Aung. Complete. 2001.USD14,000.
8. Undertook 'A Review of Industrial Cash Crops Technical Assistance Needs for Lao-PDR.' Keith Chapman. 2001. USD 2,000.
9. Under took a 'A Review of Industrial Cash Crops Technical Assistance Needs for Vietnam'. Keith Chapman. 2000.USD 3,500.
10. Funded and supervised a study 'Oil Palm Development in Myanmar –Present Status and Future Needs', Ricardo Escobar.2001.USD 10,000.
11. Funded and jointly undertook a study of High-Value Crops for Timor Leste with Rod Woolcock. 2004. USD 7,000.
12. Funded and oversaw a Feasibility Study for Oil Palm Development in Timor Leste, Ricardo Escobar and Francisco Peralta. 2004. USD 20,000.
13. Funded implementation of a proposal, prepared with Wilco Liebregts and Dr. Tran Tan Viet, for Bio-control of Coconut Brontispa Beetle in Cambodia. USD 20,900.
14. Funded and organised The First Asian Regional Round-table on Sustainable and Specialty Coffee Production, Processing and Marketing was organised by myself and the Royal Project Foundation of Thailand in Chiang Mai, Thailand.2001, which defined and prioritised key technical assistance areas for 7 participating countries. USD10,000.
15. Sponsored publication of the Proceedings of The Second International Conference on Sustainable Agriculture for Food, Energy, and Industry, Beijing China. 2002. USD10,000.
16. Sponsored the APCC COCOTECH Meeting, 2002, in Thailand. USD 6,000.
17. Sponsored the Third World Congress on Medicinal and Aromatic Plants, WOCMAPIII, Chiangmai, Thailand 2003 and four coloured publications, Amazing Thai Spices, Amazing Thai Medicinal Plants, Amazing Thai Herbs, and Amazing Thai Native Fragrant Flowers. USD. 10,000.
18. Provided part-funding of a UNISTAR UNDP Mission to Vietnam on Quality Improvement of Green coffee and Mould and Ochratoxin A Prevention, by KRAFT UNISTAR Volunteers. USD 3,000.
19. Sponsored the Second International Symposium on Lychee, Longan, Rambutan and Other Sapindaceous Plants, Chiang Mai, Thailand. 2004 and four coloured publications on Amazing Thai Fruits, Amazing Thai Longan, Amazing Thai Rambutan and Amazing Thai Lychee. USD10,000.
20. Sponsored publication of Preceedings and Proceedings of 3<sup>rd</sup> International Conference on Vetiver in Guangzhou China in October, 2003. USD 10,000.
21. At request of Royal Bhutanese Government, funded and edited A Sector Study of the Oil Seeds Industry of Bhutan, Don Beech.2002.USD 3,000.
22. Prepared a proposal for Outreach of New Pepper (*Piper nigrum* L.). Technologies to Sri Lanka for implementation with Int. Pepper Community personnel and consultants and GOSL. USD 21,900. Funds available-awaits approval.
23. Coordinated the on-line entry of Rubber into www.ecoport.org world database.
24. Funded and helped prepare and implement, with Wilco Liebregts a project proposal on Biocontrol of Coconut Hispid Beetle in Cambodia. USD20,900.
25. Coordinated and edited with Chinese and FAO colleagues a Training Manual on Sweet Sorghum. CDROM. USD 2,000.

26. Funded and provided technical editing of Coffee Manuals for Lao, Thailand and Myanmar in collaboration with Ted Winston, Jacques Op De Laak and counterparts. 2005. USD18, 400.
27. Funded a Pilot On-farm Demonstration of Small-Scale Equipment for Improvement of Pepper Quality in E. Kalimantan, Indonesia in cooperation with International Pepper Community. USD 9,800.