CURRICULUM VITAE

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DATE OF BIRTH: 21 April 1944

MARITAL STATUS: Married with 4 adult children NATIONALITY: Australian at Birth and Current

PROFESSIONAL QUALIFICATIONS AND AFFILIATIONS:

Queensland Diploma of Horticulture (Hons.) Queensland

Agricultural College, 1961

B. Agr. Sc., University of Queensland, 1964 M. Agr. Sc., University of Queensland, 1968

LANGUAGES AND PROFICIENCY:

English: native language – excellent Thai: basic spoken – fair/slight Indonesian: basic spoken – fair/slight

FIELDS OF SPECIAL INTERNATIONAL EXPERTISE AND COMPETENCE:

- 1. Industrial including Bio-fuel Crops and Policies, Horticultural Tropical, Sub-tropical & Temperate Crops Development, Research, Extension, Training and Farming. Experience with crop adaption to changed and marginal climates. (*Grew up on a fruit/vegetable farm in Queensland, Australia*).
- 2. Institutional Development in Horticultural/ Agricultural Research Departments of Agriculture National Agricultural Research Programs; Universities Teaching, Research, Curriculum Development, Post-graduate Supervision and Consulting. Research and Development Leadership, Research Master Plans, Programs and Priorities. Ag Research Projects/Programs and Proposals evaluations. Crop Adaption to adverse Climatic and AEZ stresses.
- 3. Agricultural Technology Vocational Education in developing countries.
- 4. Sustainable Farming and Cropping Systems, Uplands, Highlands and Lowlands of Asia/Pacific.
- 5. Research/Extension Planning and Management Systems, Methodologies and Linkages.
- 6. Team Leadership in Project/ Feasibility/ Design/ Development/ Implementation/ Management.
- 7. Drip Irrigation Research, Management & Technology. Coconut and coffee processing specialties.
- 8. Agriculture/Industrial Crop Horticulture Sector Studies & Appraisals of Projects and Reports.
- 9. Horticultural and Industrial Crop Development Systems, Post Harvest Systems & Agro-Processing Systems & Marketing Systems for Humid and Arid Tropical/Subtropical and Temperate Climates.
- 10. Rural Development Projects Land Use Planning; Assessing Cropping Potential, Food Security
- 11. Agribusiness, Design, Feasibility, Appraisal /Management of Hort/Industrial Crop Enterprises.
- 12. Agricultural Strategic Master Research and Development Plans preparation: Agro-forestry Farming Systems Development in Asia and Natural Resources evaluation, management and conservation. Agriculture and Food Security Development Strategies and Master Plans.

(As of 2016, 22 years experience in Horticulture/Agriculture Crop Research, Development and Extension in Australia and approximately 34 years Long Term and Short Term International experience, including 19 years as a self-employed international consultant in Horticulture/Industrial/Agriculture farm systems).

Current Position: Self-employed International Agriculture Consultant/Adviser

Crop Experience: Tropical, Sub-tropical & Temperate fruit and various Tropical & Temperate Vegetables, Industrial, Bio-fuel Crops, Field and Fodder Crops, Integrated livestock and paddy rice and upland rice farming systems in Asia and Pacific.

RELEVANT PROFESSIONAL EXPERIENCE/EMPLOYMENT HISTORY:

2016 FINAL REVIEW OF ACIAR PROJECT HORT/2016/159-BUILDING A RESILIENT CAMBODIA MANGO INDUSTRY IN CAMBODIA AND AUSTRALIA THROUGH IMPROVED PRODUCTION AND SUPPLY CHAIN PRACTICES

International Consultant/Adviser: Undertook a Final Review of the ACIAR PROJECT HORT/2016/159-Building a Resilient Mango Industry in Cambodia and Australia through Improved Production and Supply Chain Practices for ACIAR, Canberra, Australia. 12 days.

2016 REVIEW OF THE TONGA AGRICULTURE SECTOR PLAN FOR TONGA SECRETIARIAT OF THE PACIFIC COMMUNITY/WORLD BANK

International Consultant/Adviser: Undertook a Review of the Tonga Agriculture Sector Plan for Secretariat of the Pacific Community (SPC) and World Bank to seek qualification for funding from the World Bank administered Global Agriculture and Food Security Program (GAFSP) for Tonga. 10 days,

2016 PROVISION OF ADVICE AND ASSISTANCE TO THAILAND DEPARTMENT OF THAILAND AGRICULTURE AND THE CONSERVATION AND DEVELOPMENT OF COCONUT OIL OF THAILAND (CDCOT) FORUM.

International Adviser: Provided guidance and advice to Thailand DOA on Virgin Coconut Oil and coffee and assisted with follow-up planning for the Second ICCO (International Conference on Coconut Oil) to be held in Thailand in March/April 2017. Provided advice to farmer groups in South Thailand, on processing and quality control of Robusta coffee. Additionally provided advice and guidance to setting up high quality Virgin Coconut Oil production and downstream products in Viet Nam.

2015 PROVISION OF ADVICE AND ASSISTANCE TO THAILAND DEPARTMENT THAILAND OF AGRICULTURE.

International Adviser to Thailand Department of Agriculture: Provided guidance and advice to Thailand DOA on follow-up to the ICCO conference below. Edited papers from ICCO conference and Durian and Tropical Fruits Conferences. Provided advice to the ASEAN Coffee Group on Good Agricultural Practices Guide for the ASEAN Region.

2015 PROVISION OF ADVICE AND ASSISTANCE TO THE ORGANISATION AND THAILAND CONDUCT OF THE FIRST INTERNATIONAL CONFERENCE ON COCONUT OIL (ICCO) IN THAILAND MARCH 2015 AND THE DURIAN AND TROPICAL FRUITS CONFERENCE IN THAILAND JUNE 2015.

Member of the Organising and Scientific Committees of both conferences. Helped develop the International Strategic Action Plan for Coconut. Oil and in addition assisted the Asian Pacific Coconut Community and the University of Queensland with proposals and funding to assist cloning of coconut and Bogia Coconut Syndrome diagnosis. Edited proceedings of the ICCO. 28 days.

2014 COLLABORATIVE STUDY ON COFFEE REJUVENATION IN VIETNAM

VIET NAM International Coffee Specialist: Reviewed coffee rejuvenation strategies currently applied in Viet Nam and provided recommendations of a menu of viable rejuvenation strategies. FAO for World Bank Viet Nam Sustainable Agriculture Transformation Project. 28 days.

2013 KUWAIT INVESTMENT STRATEGY IN MAJOR FOOD COMMODITIES & KUWAIT MASTER PLAN OUTLINE

International Specialist Agronomist: Undertook the assessment of the Natural Resource Base (Climate, Soils, Water) and the current agricultural crop production in Kuwait as part of the Food Security Strategy component. Stewart Routledge Associates Limited, Dubai. 21 days.

2013 MID TERM REVIEW OF ACIAR AUSTRALIA-PAKISTAN SECTOR LINKAGES PAKISTAN PROGRAM PHASE II.

International Specialist: Undertook the Mid Term Review of the ASLP II Program for ACIAR, which involved research, development extension and training in projects involving, mango, citrus, social research and dairy industries in Pakistan and Australia. 18 days.

2012 FINAL REVIEW OF ACIAR PROJECT PC/2008/003 STRENGTHENING
FIJI THE FIJI PAPAYA INDUSTRY THROUGH APPLIED RESEARCH AND
INFORMATION DISSEMINATION

International Specialist/Team Leader: Undertook the Final review of the successful ACIAR Papaya project in Fiji and North Queensland, Australia with Stephen Hazelman from Samoa, as the Pacific representative reviewer. The primary aim of the project was to substantially increase the contribution of papaya fruit to fruit and vegetable exports and improve livelihoods of people in western Viti Levu, Fiji. 12 days.

2012 AGRICULTURE DEVELOPMENT STRATEGY FOR NEPAL

NEPAL ADB PPTA TA-7762 NEP

International Agriculture Specialist: Preparation of Agriculture Development Strategy for Nepal-ADB TA-7762 NEP PPTA. Supervised the inputs of Specialist consultants on Field Crops, Horticulture and Industrial Crops, Livestock, Fisheries, Rangelands, Land Use, and Research and Extension with contributions to Agribusiness, Conservation and Climate change and adaption, on the *seventh* input Prepared the combined Agriculture Sector Strategic Action Plan and Road Map Report for Nepal. 0.75 months.

2012 AGRICULTURE DEVELOPMENT STRATEGY FOR NEPAL

NEPAL ADB PPTA TA-7762 NEP

International Agriculture Specialist: Preparation of Agriculture Development Strategy for Nepal-ADB TA-7762 NEP PPTA. Supervised the inputs of Specialist consultants on Field Crops, Horticulture and Industrial Crops, Livestock, Fisheries, Rangelands, Land Use, and Research and Extension with contributions to Agribusiness, Conservation and Climate change adaption, during the *sixth of seven* of inputs. Prepared the Policy and Strategy Options Report for the Agriculture Sector of Nepal. 0.75 months.

2011 FINAL REVIEW OF ACIAR PHILIPPINES FRUIT AND VEGETABLE PHILIPPINES PROGRAM AND THE COMPONENT PROJECTS HORT/2007/0066 – VEGETABLES AND HORT/2007/067-FRUITS

International Specialist/Team Leader. Undertook a review of the successful ACIAR Fruit and Vegetable 4 year Programs, which involved a wide range of components from supply chains and marketing to, pest and disease control, post harvest aspects, protected cultivation and soil management and nutrition, in the Central and Southern Philippines. The project was designed to improve livelihoods and alleviate poverty via competitive marketing in the Philippines and for exports in the case of selected fruits. Recommendations were given for concluding stages of the project and for a second phase. 1 month.

2011 REVIEW OF ACIAR PARDI PROJECT PC/2008/04 –PACIFIC FIJI AGRIBUSINESS RESEARCH FOR DEVELOPMENT INITITIVE

International Agriculture Specialist/Team Leader: Undertook a review of the ACIAR PARDI project which involves Agribusiness/Supply Chains and Value-chain analyses, marine, forestry, crops and capacity building components aimed at improvement in livelihoods, competitiveness and poverty alleviation of Pacific islanders. Review done for the Australian Centre for International Agricultural Research (ACIAR) and recommendations given for re-formulation, implementation modality and management changes required. 11 days.

2011 AGRICULTURE DEVELOPMENT STRATEGY FOR NEPAL NEPAL ADB PPTA TA-7762 NEP

International Agriculture Specialist: Preparation of Agriculture Development Strategy for Nepal-ADB TA-7762 NEP PPTA. Supervised the inputs of Specialist consultants on Field Crops, Horticulture and Industrial Crops, Livestock, Fisheries, Rangelands, Land Use, Food Security and Research and Extension on the *second and third* of 4 missions involving Assessment and Vision for the Strategy on the PPTA assignment and preparation of the Inception Report. 1.0 month.

2011 AGCULTURE DEVELOPMENT STRATEGY FOR NEPAL

NEPAL ADB PPTA TA-7762 NEP

International Agriculture Specialist: Preparation of Agriculture Development Strategy for Nepal-ADB TA-7762 NEP PPTA. Supervised the inputs of Specialist consultants on Field Crops, Horticulture and Industrial Crops, Livestock, Fisheries, Rangelands, Land Use, Food Security and Research and Extension on the *first* of 6 missions on the PPTA assignment in preparation for the Inception Report. 0.9 month.

2010 OMAN FOOD SECURITY STRATEGY PROJECT FOR

OMAN SULTANTATE OF OMAN MINISTRY OF COMMERCE AND INDUSTRY

International Agriculture and Natural Resources Specialist: Undertake a complete assessment of the Natural Resources Capabilities of Oman and prospect for local production of all agricultural and horticultural crops and fodder and help prepare a Food Security Strategy and Master Plan for Oman for 2011-2020. GRM International Pty Ltd Australia. 5.5 months.

2009 DETERMINE POTENTIALLY SUCCESSFUL HORTICULTURAL GAMBIA
AND INDUSTRIAL CROPS FOR THE GAMBIA FOR THE WORLD
BANK GROWTH AND COMPETIVENESS PROJECT

International Agronomist: With a Supply Chain Specialist undertook a study of The Gambia Agroecological Zones (AEZ), including climate, water supplies and soils to determine likely commercially

successful horticultural and industrial crops to develop for export and import substitution to alleviate poverty and promote food security. Identified all potential uses for the crops, plus AEZ and technical constraints and opportunities for development, as well as identification of socio-economic criteria required for success. Global Development Solutions LLC. USA. 0.6 months.

2009 REVIEW OF COFFEE R&D PROJECTS IN HIGHLANDS OF PAPUA
PNG NEW GUINEA FOR AUSTRALIAN CENTRE FOR INTERNATIONAL
AGRICULTURAL RESEARCH (ACIAR)

International Reviewer: Undertook a final review of three ACIAR PNG Arabica coffee projects viz.ASEM/2004/017 Assessment and improvement of quality management during post harvest processing and storage of coffee in Papua New Guinea, plus ASEM/2004/042 Assessing and Extending Schemes to Enhance the Profitability of the PNG Coffee Industry via Price Premiums for Quality and ASEM/2004/047 Sustainable management of coffee green scales in Papua New Guinea. 0.25months

2009 ADB TA PRC - 4987 NATIONAL STRATEGY FOR SUSTAINABLE CHINA ENERGY CROPS DEVELOPMENT IN CHINA. Component B.

Preparing a National Strategy for Sustainable Energy Crops Development

Int. Agronomist: Undertook a final input into the ADB Energy Crops Resources Assessment for preparation of the National Strategy and Roadmap for sustainable energy crops development in China. Updated current and future potential energy crops, particularly liquid bio-fuel crops, for development in relation to lands available that do not conflict with food crops. Participated in final stakeholder workshop for the project and the International Workshop on Sustainable Energy Crops and Biofuels in China and Asia.Cardno-ACIL for ADB. 0.25 months.

2009 RAPID APPRAISAL OF THE BIOENERGY-FOOD SECURITY NEXUS IN THE PACIFIC FOR FAO

International Agronomist /Bio-energy Specialist. Undertook a rapid appraisal of the bio-energy-food security nexus for the 14 Pacific Island countries, including selected missions to 6 countries. The aim of the appraisal was to identify up to 4 countries for further in-depth studies to show how to link national food security policy with energy and natural resources policies with beneficial outcomes for green house gas emission reduction without commensurate threats to food security and the natural resource base and environment. 2 months.

2008 PHILIPPINES SHORT-TERM MISSION ON AGROFORESTRY AND HORTICULTURE / INDUSTRIAL CROPS FOR ENVIRONMENT AND RURAL DEVELOPMENT PROGRAM (ENRDP), PHILIPPINES COMMUNITY BASED FOREST MANAGEMENT (CBFM) COMPONENT FUNDED BY GTZ AND KFW-FOR DFS GERMANY

International Team Leader/Horticulturist/Industrial Crops Specialist. Undertook a mission with a team of four (4) specialists to define commercial perennial crop agro-forestry species and enterprises for replacement of annual cropping on sloping degraded lands of Leyte, Negros and Panay of the Western Visayas of the Philippines. Compiled crop assessment summaries and cost/benefits and recommended prospects for successful development in the various existing farm systems. 1 month.

2008 INITIAL PORTFOLIO PROFILING OF CROPS/ ENTERPRISES WITH CAMBODIA MULTI-SECTORIAL PROSPECTS FOR SAMLUAT DISTRICT OF BATTAMBANG PROVINCE CAMBODIA

Int. Agronomist/Industrial Crops Specialist. Defined potential crops/enterprises for development by smallholders in the district to improve livelihoods and incomes of poor communities. For Prosperity Initiative-Viet Nam.1 week.

2008 INITIAL PORTFOLIO PROFILING OF CROPS/ENTERPRISES WITH VIET NAM

MULTI-SECTORIAL PROSPECTS FOR BEN TRE PROVINCE OF VIET NAM

Int. Agronomist/Industrial Crops Specialist. Defined potential crops/enterprises for development by smallholders in the district to improve livelihoods and incomes of poor communities. For Prosperity Initiative – Viet Nam. 1 week.

2008 ADB TA PRC - 4987 NATIONAL STRATEGY FOR SUSTAINABLE CHINA ENERGY CROPS DEVELOPMENT IN CHINA. Component B

Preparing a National Strategy for Sustainable Energy Crops Development.

Int. Agronomist Undertake an Energy Crops Resources Assessment for preparation of the National Strategy and Roadmap for sustainable energy crops development in China. Assess current and future

potential energy crops, particularly liquid bio-fuel crops, for development in relation to lands available that do not conflict with food crops. Cardno-ACIL for ADB. 1.5 months.

2008 PROJECT DESIGN OF ADB PPTA AGRICULTURE AND NATURAL

LAO-PDR RESOURCES SECTOR NEEDS ASSESSMENT PROJECT PHASE II. FOR ADB

Int. Agronomist: Review the agriculture, horticulture and industrial crops sectors of Lao, and with southern provinces discuss project priorities for development and assess each proposal to identify core subprojects for funding and development with a \$20m ADB grant. Design and develop a core sub-project for commercialisation together with desired supporting TA. 2.5 months.

2007 PROJECT DESIGN MISSION OF ADB PPTA 4800 SRI AGRICULTURAL

SRI LANKA DEVELOPMENT PROJECT FOR ANZDEC NEW ZEALAND

Int. Horticulture Specialist: Prepared the design of the horticulture, coffee, cocoa and coconut components of the ADB Agribusiness Development Project. 4months.

2006-2007

REVIEWS OF ACIAR PROJECTS AND CARD PROPOSALS ON MANGO, CITRUS, PASSIONFRUIT, RAMBUTAN, COFFEE, COCOA, COCONUT AND AGRIBUSINESS DEVELOPMENT-Vietnam, Papua New Guinea, Indonesia, Philippines

Self Employed Int. Agricultural Consultant: Reviewed a range of projects project proposals and reports for the Australian Centre of International Agricultural Research directly and via Hassalls International Australia and Centre for International Economics, Canberra. Ad Hoc over 4 months.

2000–2006 EMPLOYED BY FAO REGIONAL OFFICE FOR ASIA AND THE PACIFIC BANGKOK THAILAND

Industrial Crops Officer: Undertook design, sought funding and supervised implementation of industrial and horticultural crop projects, studies and feasibilities in Asia/Pacific region, worth in excess of USD 16.7 million. Crops included coffee, coconut, black pepper, rubber, oil palm, oil seeds, sweet sorghum, bio-fuels, tropical fruits, vegetables and flowers, medicinal and aromatic plants. (Project Details in Annex I, website).

Undertook more than 70 field missions, as Team Leader, in Asia/Pacific developing countries, involving industrial and high value crop reviews, sector studies, project identification, project design, project feasibility studies, monitoring and evaluation, and implementation support.

Developed key thematic work areas in the FAO Regional Strategic Framework to meet industrial crop needs and priorities of developing countries in the region and in particular smallholder farmers. Viz. Coffee Quality Improvement and Ochratoxin Prevention in Thailand, Vietnam, Myanmar and Lao, which is resulting in an increase of USD 160 million per year via value-added coffee; Virgin Coconut Oil Production which increases farm incomes by 6 to10 times; Bio-fuel/Bio-energy multipurpose crop technology development for Asia/Pacific, including sweet sorghum which can increase farm returns by 4 to 6 fold; Interactive IT packages of Technology for High Value Crops; Matching Plants to Land; Sector and Feasibility Studies, and Project Formulation on Oil Palm including Cold tolerant Oil Palm; On-farm Black and White Pepper Production and Quality Improvement and Smallholder Marketing, which increases pepper prices by 20 to 25%; Bio-control of Coconut Hispid Beetle in six countries with consequent savings in lost production and tree death estimated at USD140 million per year.

Participated in rehabilitation of East Timor (Timor Leste) and helped design and operationalise their National Development Plan for the Agriculture Sector and coffee and coconut projects and small storage silos. Provided project development support to Tsunami areas of Asia. An integral part of the programme, on crop adaption to marginal and changed climates and lands and mitigation measures.

Participated in Task Forces on Industrial Crop/Horticultural/Food Crop and project design, in projects valued at over USD 60 million and provided advice to all member countries of FAO in Asia/Pacific as and when required.

Produced various publications, papers, manuals etc., and gave presentations to key international meetings on industrial and horticultural crops. (See separate Publications List on website).

1991–2000 SELF EMPLOYED INTERNATIONAL CONSULTANT

1999 PROJECT DESIGN MISSION OF ADB BANGLADESH NW

BANGLADESH AGRICULTURAL DEVELOPMENT PROJECT FOR

FAO/INVESTMENT CENTRE

Horticulture/Agronomist Consultant. Defined what crops to grow where in the NW of Bangladesh, using simple crop models and GIS database. Developed a detailed implementation plan for the technical aspects

of the project, including development of crop models, marketing , equipment, training and consulting inputs required. 2 months

1999 WORLD VISION CENTRAL VIETNAM (QUANG NAM - DA NANG)
VIETNAM SLOPING AGRICULTURAL LAND TECHNOLOGY (SALT) PROJECT

Consultant/Adviser. Provided advice and training on perennial tree crop production on the sloping lands of Central Vietnam. Provided practical advice on crop selection, cultivar selection, cultivar introduction and adaption, nursery establishment and management and field establishment including establishment and maintenance of contour hedges and grass strips. 0.5 months

1998–99 TROPICAL/SUB-TROPICAL FRUIT FARM DEVELOPMENT IN

THAILAND and AUSTRALIA

AUSTRALIA

Consultant/Farm Manager. Managed and advised on the development of private fruit farms in Thailand and Australia. Provided practical advice and training on propagation, the selection of cultivars and the establishment and management of plantings of longan, lychee, mango, custard apple, avocado, citrus, low chill stonefruit, papaya and banana. Attended the International Pineapple and Mango Symposia in Thailand and was a keynote speaker at the Mango Symposium and summed up the complete proceedings of both symposia. Made visits to Thailand, Laos and Vietnam to perpetuate linkages for up-coming international consultancies. 9 months

1998 TECHNICAL PRE-FEASIBILITY STUDY OF THE PROCESSING OF

MONGOLIA CROP PRODUCTS IN KHOVD AIMAG, UNDP/SPPD

PROJECT NO. Mon/98/202/A/08/12-FOR FAO/RAP BANGKOK,

THAILAND

International Consultant. Undertook a Technical Pre-feasibility Study of the Processing of Crop Products in Khovd Aimag in Mongolia for FAO/RAP Bangkok, Thailand. Examined current crop production, processing and processing opportunities and identified a number of technically feasible potential pilot crop processing and passive storage projects for development in Khovd Aimag. 1 month

1998 TRAINING AND RESOURCE PERSON INPUT ON THE FAO/TCP CHINA PROJECT TCP/CPR/6717(A) "PRODUCTION, POST-HARVEST

HANDLING AND TREATMENT OF LITCHI AND LONGAN-GUIPING

CHINA". FOR FAO/RAP BANGKOK, THAILAND

Horticulture Consultant/Resource Person. On-site in China, reviewed the current harvesting and post-harvest treatments for Litchi and Longan. Assisted in preparing and presenting a training programme on fruit harvesting, post-harvest treatment, processing, packaging, production and quality control for Litchi and Longan in Guiping region of China. Provided audio visual and training manual materials for on-site workshops. Supported other International Consultants and local staff on technical issues and equipment design. 10 days

1998 DESIGN OF A HORTICULTURE RESEARCH, DEVELOPMENT AND EGYPT TRAINING FARM AND CROPPING PROGRAMME FOR KADCO

COMPANY AT ABU SIMBEL IN EGYPT-GRM INTERNATIONAL PTY

LTD BRISBANE, AUSTRALIA

Horticulture Development Specialist. Designed a full Horticulture Research Development Training Farm facility for the Saudi Company KADCO in Abu Simbel Egypt, represented by Arthur Andersen Pty Ltd. Designed the layout of the 60 ha horticulture farm, with full plant, irrigation and machinery including packing houses, pre-cooling, cool stores, ripening rooms, laboratories, offices and training rooms and facilities, etc. Reviewed the potential crops and markets for the growing of a range of horticultural crops in association with wheat, cotton and other crops on a 40,000 ha desert area in the S.Valley being developed for irrigation from the Aswan High Dam, by the Egyptian Government. Recommended trial designs, crop cultivars and a full development programme for production. 3 weeks

1998 TECHNICAL ASSESSMENT OF THREE LARGE MANGO
AUSTRALIA PLANTATIONS IN THE NORTHERN TERRITORY AND QUEENSLAND
FOR GRM INTERNATIONAL PTY LTD

Agribusiness Development Specialist. Made a Technical Assessment of the production and post harvest management of three mango plantations, totaling 80,000 trees in the Northern Territory and Queensland. Identified problems and opportunities important in raising production to previous levels and beyond and

made recommendations on future management. Provided data for economic and financial analyses of the enterprise. 3 weeks

1998 STABILISATION OF SHIFTING AGRICULTURE PROJECT - FINAL PREPARATION REPORT T.A. ADB- FOR THE FAO INVESTMENT CENTRE

Horticulture and Industrial Crops Specialist. Reviewed the prospects for horticulture and industrial crops development in the highlands of Houah Phanh and Luang Prabang provinces of Lao. Recommended what crops can be grown where in the highlands and advised on implementation strategy and methods for developing horticultural and industrial crops into the shifting cultivation upland rice based farming systems of the highlands. Provided examples of cropping models and costed the horticulture and industrial crops component. 1.5 months

1997–1998 DATABASE DEVELOPMENT FOR USE IN REFINING ACIAR'S REGIONAL COMMODITIES PRIORITIES-AGTRANS RESEARCH

Crop R&D Priority Specialist. Assisted in the team design of a database to refine the Australian Centre for International Agricultural Research's (ACIAR'S) regional commodities priorities in horticulture and some industrial and plantation crops. Helped define what crops will grow in given rainfed or irrigated agroecological zones, how to estimate technical spillovers from pre and post harvest research, assess research capability and capacity of strategic and applied research in different countries and assess level of adoption of research outputs in various countries. 1 month

1997 HORTICULTURE AGRIBUSINESS DEVELOPMENT PROJECT INDONESIA T.A. 2709 -INO-ADB/DAI

Horticultural Specialist. Defined Potential Fruit, Vegetable and Flower crops for Commercially Successful Development in Ten (10) Districts of Indonesia. Critically examined support systems for R&D&E and supply of planting materials and made recommendations for improvement. Helped establish linkages between agribusiness and small holders and assisted with project identification for Feasibility Studies and assisted with conduct of these Studies. Helped train and set-up Project Management Unit. 3 months

1997 VIETNAM—GERMANY SOCIAL FORESTRY DEVELOPMENT VIETNAM PROJECT, SONG DA. MARD—GTZ/GFA AGRAR

Food/Tree Fruit Consultant. Defined the technical options and strategies for developing a range of vegetable and fruit crops for different altitudes and agro-ecological zones in rice, maize, agroforestry farming systems of the Son La and Lai Chau Provinces of the Song Da River Watershed of N.W. Vietnam. Provided guidelines on inputs needed for agroforestry sub-tropical and temperate fruit crop development in the existing farming systems. Identified fruit cultivars for testing and development. 4 weeks

1996 FAO/RAPA BANGKOK THAILAND. TCP PROJECT PROPOSAL THAILAND

Post Harvest Management Specialist. Prepared a Project document for an FAO/TCP Project entitled "Post Harvest Management Systems Training/Development Project for Temperate and Highland (Sub-Tropical) Fruits and highland Vegetables of Asia. Dec.1996. 1 week

1995–1997 ASIAN DEVELOPMENT BANK, AGRICULTURE TECHNOLOGY INDONESIA SCHOOLS PROJECT (AGRO II) FOR DHV/LANDELL MILLS CONSULTANTS Plant Production Training Program Development Specialist. Training trainers and teachers of Agricultural Technology Education in Indonesia; assisting with production units, technology transfer, facilities development, vocational analysis, curriculum development, instructional materials, staff development, model school organisation and development, linkages and dialogue with agribusiness and agriculture institutions. Crops worked with included rice, horticultural and industrial crops. 24 months total

1995 WORLD BANK AGRICULTURE RESEARCH PROJECT PHASE II PAKISTAN SINDH AGRICULTURAL RESEARCH ORGANISATION FOR WINROCK INTERNATIONAL, ARKANSAS, USA

Team Leader (Acting) and Horticultural Research Specialist. Acted as Project Team Leader for ARP-II and trained Sindh Hort. Res. Institute staff in research management, research methodology and preparation of technology transfer crop packages for extension staff and farmers. 1.5 months

1995 USAID AGRIBUSINESS DEVELOPMENT PROJECT FOR INDONESIA DEVELOPMENT ALTERNATIVES INC. BETHESDA, USA

Team Leader and Horticulturist. Reviewed the Passionfruit industry production and agroprocessing in Sulawesi and Sumatra in Indonesia, identified major constraints and opportunities and made recommendations on R&D and revitalising and diversifying the industry. 1.5 months

1995 WORLD BANK AGRICULTURE RESEARCH PROJECT PHASE II SINDH AGRICULTURAL RESEARCH ORGANISATION FOR WINROCK INTERNATIONAL, ARKANSAS, USA

Research Program Specialist. Leader of a three man team which prepared the complete Sindh Agricultural Research Master Plan for the province-2 months. The work involved a complete review of all R&D programmes on rice, wheat, field crops, industrial and horticultural crops for Sindh province, and a development of R&D priorities for all commodities.

1994 WORLD BANK AGRICULTURE RESEARCH PROJECT PHASE II
PAKISTAN SINDH AGRICULTURAL RESEARCH ORGANISATION FOR WINROCK
INTERNATIONAL, ARKANSAS, USA.

Tropical Fruits Specialist. Prepared the Provincial Research Master Plan for Horticulture in Sindh. Trained staff in the Sindh Agricultural Research Organisation in preparation of Provincial Research Master Plans, and Crop R&D Program Planning for all commodities, including horticultural crops. 4 months

1994 AIDAB NIUE LIME FRUIT REHABILITATION PROJECT FOR GRM NIUE INTERNATIONAL PTY LTD BRISBANE AUSTRALIA

Team Leader/Horticulture Adviser. Prepared with the Agricultural Economist/Marketing Adviser a Marketing Study and Financial/Economic Feasibility on the Niue Lime Fruit Rehabilitation Project. 1 month

1994 WORLD BANK AGRICULTURE RESEARCH PROJECT PHASE II
PAKISTAN NORTH WEST FRONTIER PROVINCE AGRIC. UNIV. PESHAWAR
FOR OPCV LTD MELBOURNE VICTORIA AUSTRALIA

Principal Horticulture Consultant. Research Program Development. Conducted training workshops on Crop R&D Program Development and Research Systems Management. Assisted in the development of a Provincial Research Master Plan and addressed problems in Research Methodology in fruit, vegetables and floriculture. 1.5 months

1994 TREE FRUITS FOR THE LOWER NORTH OF THAILAND - THAI
THAILAND AUSTRALIAN AGRICULTURAL EXTENSION PROJECT-AIDAB FOR
ACIL AUSTRALIA PTY LTD MELBOURNE AUSTRALIA

Horticulture Consultant. Identified Key Tree Fruits, plus industrial crops that can be successfully grown in Thailand's Lower North paddy and upland rice based farming systems and provided the Methodology for Crop and Site selection. Compiled Tree Fruit Field Guides for the production of 10 Key fruits selected for extension, along with a Field Guide on the Do's and Don'ts involved in the promotion and extension of tree fruits. 0.75 months

NIUE PREPARATION OF PROJECT IMPLEMENTATION DOCUMENT
1994 FOR AIDAB NIUE LIME FRUIT REHABILITATION PROJECT FOR
GRM INTERNATIONAL PTY LTD BRISBANE AUSTRALIA

Team Leader. In conjunction with the Agricultural Economist/ Marketing Specialist, the Entomology Adviser and Post-Harvest Management Specialist prepared the Project Implementation Document for AIDAB. 1.1 months

1993 HORTICULTURE RESEARCH OVERVIEW OF THE WORLD BANK
PAKISTAN
AGRICULTURE RESEARCH REPORT PHASE-II, NORTHWEST
FRONTIER PROVINCE, AGRICULTURAL UNIV OF PESHAWAR,
PAKISTAN FOR OPCV LTD MELBOURNE VIC, AUSTRALIA

Principal Horticulture Consultant. Reviewed the Institutional Strengthening and Technical Input needs of Horticultural Industries in NWFP of Pakistan. Determined Priority Crops and helped develop Priority R & D Programs. Began the development of a Model to link together farmer's needs, Farming Systems Research and Extension with Research Planning and Management including prioritising programs and projects, project tracking, financial management and M & E at the Provincial level. Adapted the Horticulture R & D Model for other commodities (including rice, field crops, wheat and industrial crops)

and disciplines in the Province. Assisted in up-grading Research Methodologies within the Province. All Provincial research is coordinated by the Agricultural University of Peshawar. 0.5 months

1993 PREPARATION OF PROJECT PROPOSAL FOR AIDAB NIUE

NIUE LIME FRUIT REHABILITATION PROJECT FOR GRM
INTERNATIONAL PTY LTD BRISBANE AUSTRALIA

Team Leader. Preparation of successful Project Proposal for AIDAB Niue Lime Fruit Re-habitation Project including Approach and Methodology, Work Plan and Staff schedules etc. 0.5 months

1993 FOLLOW-UP MISSION REPORT-TREE FRUIT CROPS FOR LAO-PDR THE HIGHLANDS OF LAO PDR -UNDP/OPS XIENG KHOUANG AGRICULTURE DEVELOPMENT PROJECT FOR UNDP/OPS

Horticultural Adviser. Defined which crops will grow where in the Highlands of Xieng Khouang Province and provided the Methodology for site and crop selection, development and extension of tree fruits in the upland rice based farming systems. 1.1 months

1993 FACT FINDING MISSION - EVALUATION OF FEASIBILITY STUDY
INDONESIA ON PINEAPPLE PRODUCTION AND PROCESSING, BINTAN ISLAND
ASIAN DEVELOPMENT BANK

Horticulturist. Technically evaluated the Feasibility Study on pineapple production and processing and examined the World market prospects for pineapple and the relative competitiveness of likely major competitors in Thailand and Philippines. Advised on waste product disposal, the Environmental Impact Study and field plantation management. 0.75 months

1993 PERENNIAL TREE FRUITS FOR HIGHLAND THAILAND - THAI
THAILAND AUSTRALIA HIGHLAND AGRICULTURE SOCIAL DEVELOPMENT
PROJECT - AIDAB-FOR AACM PTY LTD ADELAIDE SOUTH
AUSTRALIA

Horticulture Adviser. Identified perennial tree fruits that can be successfully grown in Thailand's Highland upland rice farming systems and the methodology for crop and site selection. Provided Tree Fruit Field Guides for the production of 8 fruits selected for extension along with training of Field Extension Staff in crop production. 1 month

1992 LAO UPLAND AGRICULTURE DEVELOPMENT PROJECT - AIDAB/WORLD BANK FOR ACIL AUSTRALIA PTY LTD

Research Adviser. Advised on Upland agriculture farming and cropping systems and planning and implementing of on-station and on- farm research and demonstrations. Developed research programming systems and identified the linkages between farmers and rice based upland and paddy farming systems, community based extension, individual crop research, the research management and approval systems and the National Agriculture and Forestry Master Plan. Upgraded Regional Information Systems with relevant publications in English and Thai/Lao, and identified tree fruits for development along with the key cultivars for introduction. Promoted the use of grass strips to protect slash/burn sloping upland rice areas. 3 months

1992 TREE FRUIT PRODUCTION FOR THE DIVERSIFIED AGRICULTURE SRI LANKA RESEARCH PROJECT - USAID FOR DAI, BETHESDA, USA

Horticulture Adviser. Provided advice on Tropical tree fruits suited to different regions and different farming systems of Sri Lanka along with plans for their propagation and evaluation on a National scale. Defined training programs in nursery propagation and management. 1.5 months

1992 TROPICAL FRUIT PRODUCTION ACTIVITIES, CONSTRAINTS AND PROSPECTS FOR LAO-PDR - OVERVIEW FOR ACIAR AUSTRALIA

Horticulture Consultant: Compiled an Overview of Lao's Tropical Fruit industries for ACIAR to identify areas for future research & development cooperation in Lao. Assisted with the compilation of the first Agriculture Research Master Plan for Lao PDR. 1 month

1991 PRINCIPAL RESEARCH SCIENTIST - QUEENSLAND DEPARTMENT OF PRIMARY INDUSTRIES

Seconded to Consultancies and Business Development Branch at Nambour from Maroochy Horticultural Research Station. Nambour, Queensland. Duties included Consultancy Business development and training until resignation in July 1991. 2 months

1990–1991 PRODUCTION OF PINEAPPLE ON ACID SULPHATE SOILS,
VIETNAM PROCESSING AND WASTE UTILIZATION PROJECT UNDP/FAO
VIE/86/004 SOUTH VIETNAM

Team Leader/Chief Technical Adviser. Implemented Project to produce and process pineapple on Acid Sulfate Soils of Ho Chi Minh City and Mekong Delta. Provided technical advice and staff training on production and research and supervised adviser inputs on Mechanisation, Processing, Weed Control, Soil Management and Pest and Disease Control. 11 months

1988–1990 ACNARP PROJECT DEPARTMENT OF AGRICULTURE THAILAND THAILAND AIDAB/IFAD/WORLD BANK FOR W.A. DEPT. AGRICULTURE, AUSTRALIA

Horticulture Research Adviser. Advised on Development of all the Horticulture Research Institute's Research Management Systems at the National and Regional levels and Research Planning and Methodologies throughout Thailand. Crops included horticultural and industrial crops grown in a wide range of farming systems. Trained staff in Regional Centres and Bangkok in the above areas and in Research Thinking, Design, Analysis and Interpretation of Tree Crop Experiments, Irrigation Technology and Design, Monitoring and Reporting Systems, Resource and Personnel management. Administered ACNARP'S University Research Grants Program and was Visiting Professor of Horticulture at Kasetsart University, Bangkok and Joint Supervisor of three Post-Graduate Students.

(Seconded to West Australian Department of Agriculture from Queensland Department of Primary Industries.)—2.4 years.

1988–1990 SHORT TERM CONSULTANCIES UNDERTAKEN IN THAILAND AND VIETNAM, ON LEAVE FROM THE ACNARP PROJECT:

1988 HANOI FRUIT AND VEGETABLE PRODUCTION PROJECT

VIETNAM VIE/80/OO5-UNDP/FAO FOR FAO

Horticulture Consultant. Final input - training in management of Citrus Nurseries and Production of Lychee, Papaya and Guava. Reviewed the Project for UNDP. Provided Recommendations on linking the Project to a National Project on Lychee and Citrus Propagation, Nursery Management and Production-Vie/86/005 - UNDP/FAO. 1 month

1988–1990 FIVE (5) FOLLOW-UP CONSULTANCY VISITS TO THAI-AUSTRALIA PRINCE OF SONGKLA UNIVERSITY PROJECT, HATYAI THAILAND -AIDAB FOR UNIV OF OLD

Horticulture Fruit Crops Research Adviser. Developed Fruit Crops Research in the Department of Plant Science including: Training, assistance with Curriculum Development, Development of Field Trials Research Program and Development of two Research Farms. Assisted in the establishment of Tree Crops Research Institute within the Faculty of Natural Resources. Several visits made over a period of 1986-1990. 5 months

1989 LYCHEE AND CITRUS PROPAGATION, NURSERY MANAGEMENT VIETNAM AND PRODUCTION PROJECT-UNDP/FAOVIE/86/005, FOR FAO

Horticulture Consultant. Advised on the setting-up of Lychee and Citrus Nurseries and Screen Houses for holding disease-free Citrus plants as nucleus mother stock and location of Nurseries and Mother Tree Orchards. Trained project staff in Lychee and Citrus Propagation and Nursery Management and Production. 1 month

1990 PRODUCTION OF PINEAPPLE ON ACID SULPHATE SOILS, PROCESSING VIETNAM AND WASTE UTILIZATION-UNDP/FAO VIE/86/004, FOR FAO

Horticulture Consultant. Undertook an overview of the Project prior to taking up the Chief Technical Adviser position. 0.25 months

1984–1988 LIST OF 17 CONSULTANCIES UNDERTAKEN ON BEHALF OF QUEENSLAND DEPARTMENT OF PRIMARY INDUSTRIES FOR AIDAB AND UNDP/FAO:

 Participation in Tree Crops and Soil Section of the Livestock and Agricultural Project Feasibility, Design and Management Study at Uthal Bela, Baluchistan Pakistan for G.R.M. International Pty. Ltd., Brisbane for the National Logistics Cell, Pakistan - May 1984. 25 days-1.5 months

- 2) Follow up visit to **Sugarcane Research Institute of Sri Lanka** to assist with further Institute development and advised on research/extension and regulatory programs on behalf of ADAB Oct/Nov 1984. 0.75 months
- 3) Follow up visit to **Sugarcane Research Institute for Sri Lanka** to assist with Institute development and advised on proposed research/extension and regulatory programs, training and funding, on behalf of AIDAB Oct/Nov 1985. 0.75 months
- 4) Horticultural Sector Study of Seychelle Islands for ADAB Nov/Dec 1985. 0.1 month
- 5) Tropical Fruit Sector Study of Mauritius for ADAB Dec 1985. 0.75months
- 6) Tropical Fruits Curriculum and Experimental Research Training and Orchard Development at the **Thai-Australia Prince of Songkla University Project (TAPSUP)** at Hatyai, **Thailand** managed by the University of Qld, funded by ADAB April 1986. 0.5 months
- 7) Royal Highland Projects of Thailand Consulted on horticulture crop management, research needs, development, problem identification and technical assistance inputs in upland rice based farming systems for Kasetsart University and Dept. of Agriculture Royal Project Offices -April 1986. 0.5 months
- 8) UNDP/FAO Horticulture Project Vie/80/005, Hanoi, Vietnam, Consulting on fruits (tropical, sub-tropical and temperate) for Vietnam May 1986. 0.5 months
- 9) **ACNARP Project, Dept. of Agriculture, Thailand**. Consulting on Development of Horticulture Research programs on Tree Fruit crops within the Horticultural Research Institute for West Australian Dept. of Agriculture, managing agents for AIDAB August 1986. 1 month
- 10) Follow up on **TAPSUP Project** consulting at Hatyai, **Thailand** on Research Program Development August 1986. 0.25 months
- 11) Consulting for the Nusa Tenggara Timor Integrated Area Development Project in West Timor, Indonesia on tree crops for development, for ACIL, Australia Ltd., managing agents for AIDAB Nov/Dec 1986. 1 month
- 12) Follow up visit to **TAPSUP Project** consulting at Hatyai, **Thailand** on curriculum development, orchard establishment and research on tropical fruits for Univ. of Old. March 1987. 0.75 months
- 13) Follow up visit to **ACNARP Project, Thailand** on staff and facilities at regional Horticultural Research Centres, for W.A. Dept. of Agriculture, Australia. AIDAB- April 1987. 0.5 months
- 14) Follow up visit to UNDP/FAO Horticulture Project Vie/80/005 to Hanoi, Vietnam on tree fruit nursery establishment and propagation May 1987. 0.5months
- 15) Compilation of preparatory Assistance Technical Report and Project Document for Vie/86/005 Project Development of Citrus and Lychee Production in Vietnam, for UNDP June/July 1987. 1.0 months
- 16) Follow up visit to **TAPSUP Project, Hatyai, Thailand** on orchard management and research on tropical fruits for Univ. of Queensland. September 1987. 1.0 months
- 17) Follow up training visit to **ACNARP Project**, 3 workshops run with Mr D.Mayer and **Thai** DOA staff on Design, Layout and Analysis of Tree Crop Experiments for WA Dept of Agriculture, Australia-AIDAB- October 1987. 1 month

1984–1988 SENIOR RESEARCH SCIENTIST DEPT PRIMARY INDUSTRIES (QDPI) MAROOCHY HORT. RESEARCH STATION, NAMBOUR, QLD AND ON LOAN TO OVERSEAS DEVELOPMENT SECTION ODPI. BRISBANE

Executed the above 17 Consultancies for QDPI and conducted Research on: Design of Macadamia plantations, tree size, planting density and relating yield to tree size; Investigation of Mango research needs involving yield, and water requirements; Citrus, Cashew and Durian, jointly with Thailand; Grape Production in the Tropics-reviewed research needs; Developing Guidelines on how to assess the Horticultural Resource Potential of Queensland; Avocado water losses from inflorescences; Design of a Mechanical Harvester for Pineapple. Participated in National Germplasm Repository Submissions on Fruits and Vegetables for Standing Committee on Agriculture – **Annual lectures** on tropical fruits to University of Queensland students. 5 years

1982–1983 FOUNDING DIRECTOR / ADVISER OF THE SUGARCANE RESEARCH
SRI LANKA INSTITUTE OF SRI LANKA; ON SECONDMENT TO AUSTRALIAN
DEVELOPMENT ASSISTANCE BUREAU FROM ODPI

Set-up the complete new Institute including all aspects of the research, extension and regulatory functions as well as developing a Corporate Plan and the Administration, Training, Information Systems Management and Funding of the Institute. 2 years

1974–1981 SENIOR RESEARCH SCIENTIST / RESEARCH LEADER -QDPI,
AUSTRALIA MAROOCHY HORTICULTURAL RESEARCH STATION, NAMBOUR,
QUEENSLAND

During the years 1974-1981, acted as **Research Team Leader**, replanning the complete Research Program on 11 new crops and 4 major existing crops with staff of the Maroochy H.R.S. and laying the foundations for Maroochy's highly productive Research Team which has gained world-wide recognition. The research helped generated new crop industries worth now over \$800 million per year to Queensland. Personal Research on Tropical/Sub-Tropical Fruits included: Irrigation Research and scheduling; First definition of Boron Deficiency in Papaya; Development of Passionfruit Harvester; Crop development, cultivar selection and cropping manipulation in Guava; Review of Dieback in Papaya; Lychee cultivar evaluation and identification, plant manipulation and flowering studies; Pineapple water stress studies; Assessment of Horticultural Potential of S. Burnett Region; Propagation of papaya, lychee and guava; **Tropical Fruit Cultivar collecting in S.E. Asia and China**; Induction of nut drop in Macadamia. **Annual lectures** to University of Queensland students on tropical and sub-tropical fruits. 8 years

1965–1974 DIVISION I / RESEARCH SCIENTIST (PLANT PHYSIOLOGIST) AUSTRALIA QDPI, GRANITE BELT HORTICULTURE RESEARCH STATION

Research included; Studies on plant water relationships, yield responses and irrigation requirements of apples under low and high planting densities; Trickle irrigation of deciduous fruits and vines; Irrigation scheduling of Temperate Fruits; Development of a Weather Controlled Automatic Irrigation System based on Class A Pan Evaporation. Outcome of the research resulted in a five-fold increase of apple yields and completely weather controlled automated irrigation systems. Annual lectures to University of Queensland students on temperate fruit horticulture. 9 years

PUBLICATIONS: Consultancy Reports – 88; Training publications – 59; Research publications –22; Extension publications – 70; Conference and Workshop papers – 32; Technical publications/ reports – 31, Technical Reviews of Projects/Proposals-approximately 24

COMPUTER LITERACY: Competent in the use of a range of word processing, spread sheet, database, statistical, email and internet programs as well as standard office technical equipment and models for matching plants to land using minimal sets of climatic, soils and topographic data.

REFEREES FOR K.R. CHAPMAN:

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