

BLAZING AN *INTERNATIONAL* CAREER PATH IN PLANT PATHOLOGY

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CAREER OPPORTUNITIES IN INT'L DEVELOPMENT

OBJECTIVES:

- Twists and turns of my own career path
- Finding the opportunity...
- Brief explanation of the job...
- Key lessons learned....
- Tips for success...

INT'L CAREER PATH

FIRST SELF DETERMINED STEP...

- When in the process of choosing a PhD program after finishing the MS, I ***insisted*** that the program would try extremely hard to provide me with some int'l field research experience
- Shopped around and the best bet available to me was UIUC's USAID-supported INTSOY Program

SUCCESS FACTOR

TIP: IF CONSIDERING AN INT'L CAREER, GET ***ACADEMIC/TECHNICAL EXPERIENCE*** IN A FOREIGN COUNTRY AS EARLY AS POSSIBLE, AT ALL COSTS!! (MUCH MORE VALUABLE THAN PEACE CORPS TYPE EXPERIENCE)

UNIVERSITY OF ILLINOIS "EXCHANGE PROGRAM" WITH BRAZIL'S NATIONAL SOYBEAN CENTER
(FUNDED BY USAID/INTSOY)

EMBRAPA – NAT'L SOYBEAN RESEARCH CENTER



LAB, GH, & EXPT. STATION PLOTS



LAGO – ON FARM RESEARCH



PALMEIRA – ON FARM RESEARCH



RESEARCH PLOTS IN CENTER OF COMMERCIAL FIELD



LESSONS LEARNED

- ADAPT TO LOCAL CUSTOMS. BE A CHAMELEON, CHANGE YOUR SKIN TO FIT IN AND BE ACCEPTED BY YOUR FOREIGN CO-WORKERS
- NEEDED TO CONVINCING THE FARMERS TO ALLOW US TO DO THE OFR. WAS NOT AN EASY SELL JOB. AS A SCIENTIST, NEEDED TO DEVELOP SOCIO-CULTURAL SKILLS (FARMER NEGOTIATION 101)
- STRIVE TO MAKE THE FARMERS FEEL LIKE TRUE PARTNERS IN THE RESEARCH, NOT JUST LAND PROVIDERS

SELF-AWARENESS

- BRAZIL EXPERIENCE COMPLETELY CONVINCED ME THAT MY FUTURE WOULD BE DEDICATED TO AG DEVELOPMENT IN LDACS
- HOSPITALITY OF BRAZILIAN RESEARCH STAFF AND FARMERS WAS AWESOME
- FINALLY FOUND A NICHE: SAW ROLE FOR MYSELF AND MY PLANT PATH SKILLS AT INTERFACE BETWEEN RESEARCH AND THE SMALL, RESOURCE-POOR FARMER IN LDACS

“FRINGE BENEFITS”



CONSULTATIVE GROUP FOR INT'L AGRIC. RESEARCH (CGIAR)

The CGIAR Mission

- To achieve sustainable food security and reduce poverty in developing countries through scientific research and research-related activities in the fields of agriculture, forestry, fisheries, policy, and environment.

CONSULTATIVE GROUP FOR INT'L AGRIC. RESEARCH (CGIAR)

The CGIAR has five areas of focus:

- ***Sustainable production*** (of crops, livestock, fisheries, forests and natural resources)
- Enhancing ***National Agricultural Research Systems*** NARS (through joint research, policy support, training and knowledge-sharing)
- ***Germplasm Improvement*** (for priority crops, livestock, trees and fish)
- ***Germplasm Collection*** (collecting, characterizing and conserving genetic resources - the CGIAR holds in public trust one of the world's largest seed collections available to all)
- ***Policy*** (fostering research on policies that have a major impact on agriculture, food, health, spread of new technologies and the management and conservation of natural resources)

CGIAR CENTERS

[Africa Rice Center \(WARDA\)](#)

[CIAT - Centro Internacional de Agricultura Tropical](#)

[CIFOR - Center for International Forestry Research](#)

[CIMMYT - Centro Internacional de Mejoramiento de Maiz y Trigo](#)

[CIP - Centro Internacional de la Papa](#)

[ICARDA - International Center for Agricultural Research in the Dry Areas](#)

[ICRISAT - International Crops Research Institute for the Semi-Arid Tropics](#)

[IFPRI - International Food Policy Research Institute](#)

[IITA - International Institute of Tropical Agriculture](#)

[ILRI - International Livestock Research Institute](#)

[IPGRI - International Plant Genetic Resources Institute](#)

[IRRI - International Rice Research Institute](#)

[IWMI - International Water Management Institute](#)

[World Agroforestry Centre \(ICRAF\)](#)

[WorldFish Center](#)

CGIAR CENTERS

Entry- Level Employment Opportunities (i.e., Post Docs)

- Plant Breeding, Agronomy, Horticulture, Soil Science, Plant Path., Entomology, Agricultural Economics, Anthropology (***Ph.D. and language skills required – but no int'l experience required***)
- Training
- Information Dissemination & IT
- Public Relations/Marketing
- Human Resources

CIMMYT HQ – EL BATAN, MEXICO

Opportunity: Competitive application for Post Doc in Wheat/Barley Program



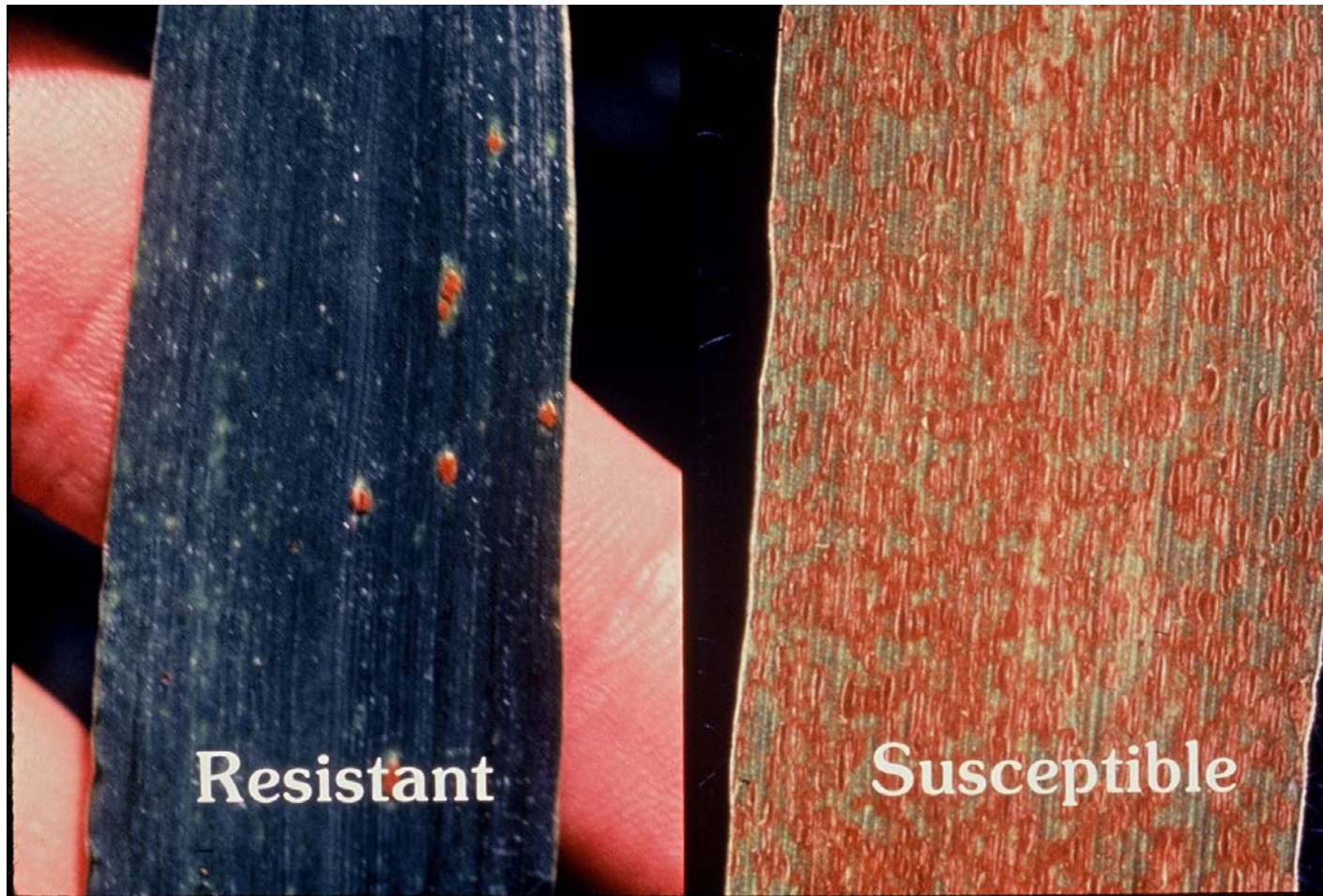
BREEDING



INOCULUM PREP AND APPLICATION FOR DISEASE SCREENING



THE OBJECTIVE (BARLEY LEAF RUST)



COUNTLESS HOURS IDENTIFYING PROMISING LINES AT MULTIPLE SITES



GLOBAL SEED DISTRIBUTION



TEAM MANAGEMENT



TRAINING VISITING SCIENTISTS FROM DEVELOPING COUNTRIES



LESSONS LEARNED AT CG CENTERS

- HAD TO CHECK YOUR PHD AT THE DOOR AND PROVE YOURSELF WITH LONG HARD HOURS IN THE FIELD.
- WHETHER PATHOLOGIST, ENTOMOLOGIST, AGRONOMIST, YOU HAD TO DEVELOP AN INTIMACY WITH THOUSANDS OF GERMPLASM LINES AND HOW THEY REACTED TO ADVERSE ENVIRONMENTAL CONDITIONS AND DISEASE PRESSURE – BREEDING SKILLS WERE THE MOST HIGHLY VALUED SKILLS
- HAD TO LEARN TO WORK AS A MEMBER OF MULTIDISCIPLINARY GERMPLASM IMPROVEMENT TEAMS.
- HAD TO MANAGE LARGE TEAMS (CREWS) OF LOCAL WORKERS AND WIN THEIR RESPECT. WITHOUT SUCH RESPECT, THEY COULD EASILY BUT SUBTLELY HAMSTRING YOUR ACTIVITIES

MULTINATIONAL FOOD COMPANIES

- AGRICULTURAL RAW MATERIAL PROCUREMENT (BASIC REQUIREMENT)
- RELIABLE YEAR ROUND SUPPLY
- HIGHEST POSSIBLE QUALITY
- LOWEST PRICE

(KRAFT, NESTLE, MCDONALD'S, FRITO LAY, CONAGRA, STARBUCKS, DOLE)

PFI
(= INT'L DIVISION OF FRITO LAY U.S.)



PEPSICO INC. – ca.1988
OPPORTUNITY: AGRO MGR FOR LAC & EUROPE WITH
FL INT'L DIV (NETWORKED/NEVER ADVERTISED)



PFI - 1988



CHALLENGE = MAINTAIN GLOBAL UNIFORMITY OF KEY BRANDS



LAY'S CHIP IN KOREA = LAY'S CHIP IN OHIO (SUCH UNIFORMITY ONLY POSSIBLE WITH RIGOROUS AGRO RAW MATERIALS MANAGEMENT)

오리온프리토레이

한번만 먹으면
못참는 그맛!

No One Can Eat Just One!

포카칩

NATURAL POTATO CHIPS

Potato chips

ONION & GARLIC

POTATO CHIPS

생감자로 만든 알카리성 건강식품
포카칩은 정선된 생감자로 만든 알카리성
건강식품으로 신선하고 산뜻한 양파와
아름답을 감자에 조화시킨 것으로 식용성
유지로 짧은 시간에 튀겨내어 감자 본래의
맛과 영양소를 최대한 유지하고 있다.

- 원장소 (만찬) 가격 : ₩ 300
- 규격 : 8.500 x 20.000
- 공업 가격 : ₩ 219 / 개
- ● 시음 ₩ 4.300 / 박스

오리온프리토레이

PROBLEM: EXTREME DISUNIFORMITY OF AGRO SOURCING SYSTEMS (PFI HARVEST: KOREA)



PFI HARVEST: CANADA



FACTORY DELIVERY: PFI THAILAND



FACTORY DELIVERY: USA



COMMERCIAL SEED PRODUCTION (HOLLAND)



SEED: IN-VITRO



PLANTING: ALABAMA



PLANTING: TURKEY



IRRIGATION: MONGOLIA



IRRIGATION: THAILAND



PESTICIDES: FLORIDA



PESTICIDES: DOMINICAN REPUBLIC



HARVEST: ITALY/CHINA



TYPICAL (ATYPICAL??) CHALLENGES

UNIFORM GLOBAL HARVEST: “THE GOAL”



SOUTH KOREA: PROCESSING PLANT



SOUTH KOREA: FARMER RELATIONS



TURKEY: CAVE STORAGE



TURKEY: STORAGE



SPAIN: FARMER RESISTANCE TO OUR RECOMMENDED VARIETIES



SPAIN: VARIETIES



SPAIN: VARIETIES (REACHED COMPROMISE WITH THE FARMERS)



LESSONS LEARNED: PFI AGRO RAW MATERIALS MANAGER

- Had to become “jack of all trades”, furthest departure from plant path yet (seed production, seed movement, crop production, contract growing schemes, transport, storage, processing quality, etc...)
- Learned to provide technical input into high level business development decisions through participation in recon missions (essentially provide SWOT analysis on agro raw material situation to high level executives)
- Learned to treat farmers as entrepreneurs and business partners

U.S. AGENCY FOR INT'L DEVELOPMENT

USAID's Structure



The Office of Nutrition, headquartered in Washington, has an experienced technical staff of scientists and program experts.

USAID has field offices in over 80 countries. Technical staff assigned overseas are responsible for oversight of research and market surveys and management of projects.

In every country, USAID also has contractors in the field to provide technical assistance to USAID-supported projects. Organizations and their personnel are selected for their technical skills as well as familiarity with the country and language.

USAID PROJECT OFFICER

- GLOBAL/REGIONAL/COUNTRY MGMT
- CONCEPTUALIZE, PRIORITIZE PROJECTS
- WRITE PROJECT RFPS
- SELECT WINNING BIDS
- PROJECT OVERSIGHT
- PROJECT M&E (IMPACT ASSESSMENT)
- CONSTANTLY REDEFINE PROJECT OBJECTIVES BASED ON POLITICAL BUZZ
- LOBBY FOR BUDGET SUPPORT

USAID PROJECT OFFICER (OPPORTUNITY CREATION)

- MID-CAREER ENTRY THROUGH FELLOWSHIP PROGRAM (COMPETITIVE APPLICATION)
- BID AS AAAS FELLOW FAILED, BUT IT GOT ME NOTICED... BROUGHT ME IN THROUGH ANOTHER FELLOWSHIP MECHANISM
- TIMING WAS LUCKY: WANTED SOMEBODY WITH BACKGROUND IN PRODUCTION AG, FOOD PROCESSING, INT'L PRIVATE SECTOR EXPERIENCE TO SERVE AS PROJECT OFFICER IN USAID'S GLOBAL OFFICE OF NUTRITION
- MANAGE A PROJECT THAT LINKED AG WITH NUTRITION THROUGH FOOD FORTIFICATION, FOOD PROCESSING, AND DIET DIVERSIFICATION

NUTRIBUSINESS

**Fortification
&
Enrichment**



**Food Processing
&
Preservation**



BURKINA FASO: SOLAR DRYING



BURKINA FASO: SOLAR DRYING



GUATEMALA (VITAMIN A DEFICIENCY)



GUATEMALA: FORTIFICATION OF SCHOOL LUNCH BISCUITS WITH VA (INCAP)



GUATEMALA: CROP DIVERSIFICATION IN LOW RAINFALL AREAS



GUATEMALA: CATCHMENT TECHNOLOGIES FOR FFV PRODUCTION IN LOW RAINFALL AREAS



USAID PROJECT OFFICER (KEY LEARNINGS)

- SPEND CONSIDERABLE TIME JUSTIFYING (DEFENDING) EXISTENCE AND FUNDING LEVELS OF THEIR PROJECTS
- HIGH TURNOVER/TRANSFER RATE OF STAFF
- VERY FEW ARE TECHNICAL EXPERTS (RELY ON CONTRACTORS FOR FIELD DESIGN AND EXECUTION)
- CONTRACTORS DO THE MOST INTERESTING WORK!! (BUT USAID OFFICERS VIEWED WITH PRESTIGE SINCE THEY HOLD THE PURSESTRINGS FOR PROJECT STARTUPS, EXTENSIONS, ETC...)

ENTRY POINTS FOR JOB OPPORTUNITIES WITH USAID

NEW ENTRY PROFESSIONALS (NEPS – experience based)

- Applicants must demonstrate a combination of experience, education and training equivalent to seven years of professional experience directly related to the specific position to be filled, or a Bachelor's degree in a relevant major plus 3 years of relevant experience, or a Master's degree in a relevant major plus one year of experience, or, a Ph.D. in a relevant major, or an equivalent combination of such education and experience

ENTRY POINTS FOR JOB OPPORTUNITIES WITH USAID

FELLOWSHIP PROGRAMS (degree-based)

- USAID currently has 8 fellows programs, utilizing, as of June 30, 2000, 145 fellows -- 65 in the Global Bureau, 21 in other Bureaus, 40 in field missions, and 19 in non-USAID locations
- Demographically, the fellows are highly educated, **48 percent hold Ph.D.s, 46 percent master's degrees, 4 percent with medical or law degrees, and 2 percent with bachelor's degrees.**

ENTRY POINTS FOR JOB OPPORTUNITIES WITH USAID

FELLOWSHIP PROGRAMS

- Amer. Assoc. for the Advancement of Science (AAAS)
- Johns Hopkins Health & Child Survival Program
- Univ. of Michigan Population Fellows Program
- World Learning Democracy Fellows Program
- Investing in Women in Development (IWID)
- Emerging Markets Development Advisors Program (EMDAP)

USAID CONTRACTOR

- RESPOND TO RFPS
- REPUTATION BASED ON ABILITY TO RECRUIT HIGH QUALITY CONSULTANTS ON SHORT NOTICE (EACH HAS PROPRIETY DATABASE OF “ON-CALL” EXPERTS)
- DESIGN PROJECTS FOR USAID
- IMPLEMENT PROJECTS FOR USAID
- PROVIDE TRAINING AND TECHNICAL EXPERTISE
- NGO (CARE, SAVE THE CHILDREN, WORLD VISION, NDI, UNIVERSITIES)
- PRIVATE CONSULTANCY FIRMS (DAI, CHEMONICS, ABT, WINROCK...)

USAID ASIA BUREAU: REGIONAL AGRIBUSINESS PROJECT (RAP)

- OPPORTUNITY CREATION: CONTRACTOR (DAI) RECRUITED ME WHILE I WAS STILL “INSIDE” USAID (I AGREED TO BE PUT ON THEIR PROPOSAL, AND AGREED TO SERVE IF THEY WON.... THEY WON!)
- PROJECT WAS BASED IN DC - SUPPORTED FIELD ACTIVITIES IN 6 ASIAN COUNTRIES (PHIL, INDO, NEPAL, BDESH, INDIA, SRI LANKA) USING 4 SUBCONTRACTORS AND 5 KEY STAFF
- ***Sample RAP Activity: NEPAL VA SUBPROJECT: NUTRITION MONITORING AND FFV PROMOTION***

NEPAL: PROJECT AREA (TULSIPUR)



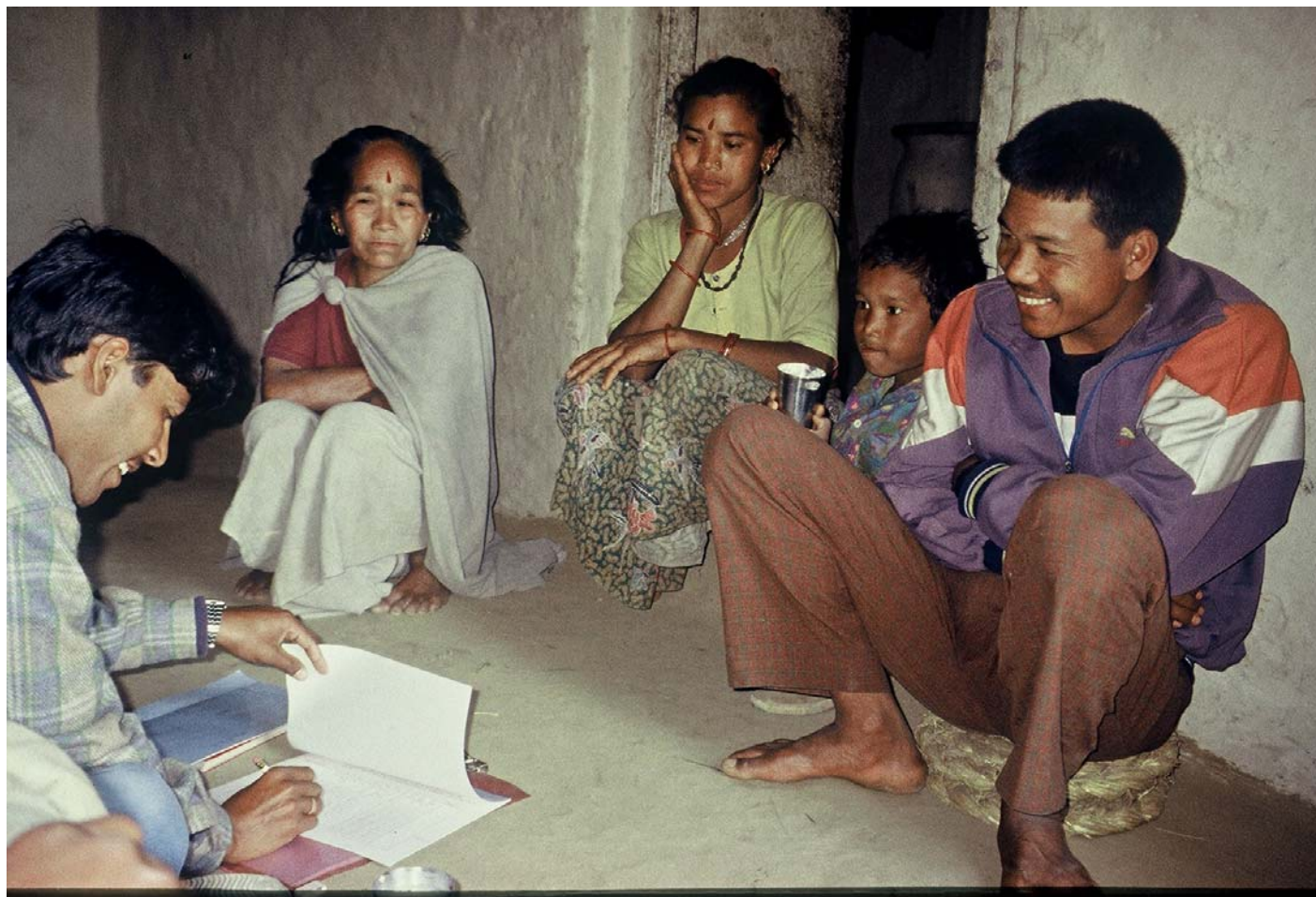
NEPAL: RAP VA PROJECT



NEPAL: RAP VA PROJECT



NEPAL: RAP VA PROJECT (HOUSEHOLD INCOME SURVEY)



NEPAL: RAP VA PROJECT (NUTRITION MONITORING)



NEPAL: RAP VA PROJECT (FOOD CONSUMPTION SURVEY)



NEPAL: RAP VA PROJECT



NEPAL: RAP VA PROJECT (OUR PROJECT PROVIDED
BASELINE DATA JUST BEFORE A HIGH VALUE HORT
PROJECT WAS TO BE IMPLEMENTED



LESSONS LEARNED FROM USAID PROJECT IMPLEMENTATION AS A CONTRACTOR

- WORK IS MORE FULFILLING THAN ON THE USAID SUPERVISORY SIDE
- CAN DEVELOP LASTING RELATIONSHIPS WITH LOCAL OFFICIALS, CONSULTANTS, PROJECT BENEFICIARIES
- VERY DIFFICULT TO BUILD SUSTAINABILITY INTO USAID PROJECTS (SHORT TIMEFRAMES, HIGH RATE OF TURNOVER OF USAID STAFF)

“BASIC” TIPS FOR PURSUING AN INT’L CAREER IN DEVELOPMENT

- LANGUAGE
- FOREIGN COUNTRY EXPERIENCE EARLY
- TECHNICAL SPECIALTY (\geq MA/MS/MBA)
- UNDERSTAND DEVELOPMENT THEORY
- TOOL BOX WITH SPECIAL SKILLS TO SET YOU APART (GPS, CROPS, WASTE MGMT, SOLAR POWER, DRIP IRRIGATION, MICROFINANCE, COOPERATIVES)

TIPS FOR HAVING A SUCCESSFUL CAREER IN INT'L DEVELOPMENT

- GO WITH YOUR “GUT”
- NETWORK LIKE CRAZY
- NEVER BURN ANY BRIDGES (DEVELOPMENT COMMUNITY IS SMALL)
- NEVER PIDGEON-HOLE OR STEREOTYPE YOURSELF (***BECOME A JACK-OF-ALL TRADES!***)
- DON'T BE AFRAID TO JUMP INTO UNFAMILIAR TERRITORY ***OUTSIDE YOUR “COMFORT ZONE”***
- VERSATILITY + HUMILITY + RESPECT!!!

TIPS FOR HAVING A SUCCESSFUL CAREER IN INT'L DEVELOPMENT

- DEVELOP A SENSE OF ***SOCIAL RESPONSIBILITY...***
- DEVELOPMENT WORK IS MORE THAN JUST A “GOOD” JOB IN AN “EXOTIC” PLACE – IT’S A PRIVILEGE, AN OPPORTUNITY TO TACKLE THE HUGE PROBLEMS OF POVERTY ALLEVIATION, HUNGER, AND DISEASE...
- THESE COUNTRIES ARE BEHIND... IF YOU FAIL, YOU HAVE WASTED THEIR VALUABLE TIME, AND THEY HAVE PRECIOUS LITTLE TO SPARE...

Remember...

IN INT'L DEVELOPMENT WORK YOU
ARE OFTEN GOING TO ***GET***
STUCK IN VERY BAD WAYS...

LEARN TO IMPROVISE!!

UTILIZE LOCAL KNOW HOW AND TEAM BUILDING



DON'T DISREGARD OLD FASHIONED REMEDIES



STAY SAFE....



WHEN THE STRESS IS OVER-
BEARING, (AS IS OFTEN THE
CASE WITH AGRICULTURAL
PROJECTS) FIND WAYS TO
RELAX...

BLOW SOME SMOKE... (THAILAND)



FOOT MASSAGE... (CHINA)



BEACH TIME... (PHILIPPINES)



OVERTIME, WITHOUT PLAYTIME, CAN
HAVE ITS CONSEQUENCES...



HERE'S TO YOUR HEALTH – BEST OF LUCK AS YOU “GO INTERNATIONAL”!!

