

DEALING WITH AN EVER CHANGING WORLD: AGRICULTURE AND CONSERVATION CHALLENGES

RON HELINSKI
ronhelinski@verizon.net
410-991-5157



OVERALL CHALLENGES

“TO LOOK FORWARD AND NOT BACK,
TO LOOK OUT AND NOT IN, AND
TO LEND A HAND”Edward Everett Hale

“THE CRITICAL RESPONSIBILITY FOR THE
GENERATION YOU’RE IN IS TO HELP PROVIDE THE
SHOULDERS, THE DIRECTION, AND THE SUPPORT
FOR THOSE GENERATIONS WHO COME BEHIND”
.....Gloria Dean Randle Scott



TOMORROW'S WORLD*

- NEXT 40 YEARS PREDICTED TO BE FINAL PERIOD OF RAPID AGRICULTURAL EXPANSION
- GLOBAL POPULATION 50% LARGER= 9.2 BILLION IN 2050
- INCREASE DEMAND FOR FOOD-WILL NEED TO DOUBLE THAT OF 2000
- PROJECTED 10 HECTARES OF NATURAL ECOSYSTEMS WOULD BE CONVERTED TO AGRICULTURE BY 2050
- INCREASE BY 2.4-2.7 FOLD IN NITROGEN AND PHOSPHORUS DRIVEN EUTHROPHICATION OF TERRESTRIAL AND FRESH WATER/NEAR SHORE MARINE ECOSYSTEMS

*Tilman,David. Forecasting Agriculturally Driven Global Environmental Change.



KEY ISSUES/CHALLENGES

- LACK OF UNDERSTANDING BY SOCIETY THAT MAN IS DEPENDENT UPON THE GLOBE'S CAPACITY FOR BIOTIC RENEWABLES FOR HIS/HER SUSTENANCE
- ECOLOGICALLY HEALTHY LEVELS OF BIODIVERSITY ARE ESSENTIAL TO AGRICULTURAL PRODUCTIVITY (INTERDEPENDENCE OF INSECTS AND ANIMALS HELP PLANTS REPRODUCE, CONTRIBUTIONS TO SOIL PRODUCTIVITY, ETC.)
- EUTHROPHICATION AND HABITAT DESTRUCTION WOULD CAUSE UNPRESIDENT ECOSYSTEM SIMPLIFICATION, LOSS OF ECOSYSTEM SERVICES AND SPECIES EXTINCTION
- NEED STRATEGIC COMMITMENT- NEED TO DEVELOP A NEW PARADIGM OF AGRICULTURAL DEVELOPMENT AND NATURAL RESOURCE CONSERVATION. NEW INSTITUTIONS AND LEADERSHIP ARE NEEDED.
- RESPONSIBILITY TO LEAD. WHO WILL BE TOMORROW'S LEADERS? WHAT VISION WILL THEY HAVE, IS THERE ONE NOW?



CAN AGRICULTURE AND CONSERVATION OBJECTIVES CO- EXIST?

- NOT ONLY CO-EXIST BUT CAN BE SUSTAINED THROUGH TECHNOLOGY AND ECOLOGICAL UNDERSTANDING
- NEW CONCEPTS BEING DEVELOPED:
 - CONSERVATION AGRICULTURE (WIKIPEDIA)



TODAY'S EXAMPLE

- US FARM BILL CONSERVATION PROGRAM
BUSHONG FARMS-2,000 ACRE FARM IN HAND COUNTY,
SOUTH DAKOTA

MANAGED FOR CROPS AND WILDLIFE

“WILDLIFE ADDS VALUE TO OUR FARMING OPERATION” STATES TODD BUSHONG. BY ADDING VALUE TO THE COMMUNITY THROUGH CONSERVATION WE ALSO ADD VALUE TO OUR COMMUNITY BY BRINGING RURAL ECONOMIC DEVELOPMENT FROM HUNTING AND AG TOURISM. BY IMPROVING WILDLIFE HABITAT I’VE NOTICED DECREASED SALINITY AND INCREASED YIELDS IN CROPLANDS.”



STATE OF MARYLAND EXAMPLES

- GOVERNOR'S AG FORUM, FEBRUARY 19, 2010*
AG COMMUNITY WOULD BENEFIT FROM
DEVELOPING STRONGER TIES AND BETTER
WORKING RELATIONSHIPS W/CONSERVATION –
SURVEY- 79.5% AGREE
- MANAGING CROPS FOR BIOENERGY –
SWITCHGRASS AND BARLEY
- CONSERVATION AGRICULTURE GOOD FROM
WATER QUALITY AND QUANTITY PERSPECTIVE

*2025-Developing a Vision for Maryland Agriculture, Annapolis, Md.



HOW TO BRING ABOUT DESIRABLE CHANGE?

- GLOBAL COMPETITION HAS GOT LEADERS THINKING ABOUT CHANGE
- GOAL: STABILITY
- HEIGHTEN GLOBAL COMPETITION WILL USHER IN CHANGE.
- NEED ADVANCES IN SCIENTIFIC, REGULATORY, TECHNOLOGICAL AND POLICY CHANGES
- NEED ALIGNMENT OF BUSINESS CULTURE, VALUES, AND BEHAVIORS OF THOSE RESPONSIBLE FOR DESIGNING, EXECUTING AND LIVING WITH A CHANGING ENVIRONMENT
- RESPONSIBILITIES LIE WITH OUR COMMUNITIES



SUMMARY

- CHALLENGES/CHANGE AHEAD FOR GLOBAL AGRICULTURAL/CONSERVATION
- AG/CONSERVATION CAN CO-EXIST
- WILL NEED FOCUS AND VISION TO BEST ADDRESS CHALLENGES AND CHANGE
- QUESTIONS:
 1. WHAT ROLE WILL INTERNATIONAL NUFFIELD PLAY IN THE FUTURE? IS NUFFIELD SATISFIED WITH THEIR CURRENT MISSION? IS THERE A LARGER GOAL TO ATTAIN?
 2. CAN INTERNATIONAL NUFFIELD ADD VALUE TO BRINGING ABOUT A DESIRABLE FUTURE FOR AG/CONSERVATION?
 3. FORUM ON INTERNATIONAL AGRICULTURE- DEVELOP GAME PLAN FOR AG IN THE FUTURE-NUFFIELD A CATALYST?



CONCLUSION

“BE THE CHANGE YOU WANT TO SEE IN THE
WORLD”Mahatma Gandhi