Citrus Health Response Program Update United States

Osama El-Lissy
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CITRUS HEALTH RESPONSE PROGRAM

Cooperative Program:

- California Department of Food and Agriculture
- Arizona Department of Agriculture
- Texas Department of Agriculture
- Louisiana Department of Agriculture
- Florida Department of Agriculture
- California Citrus research Board
- Florida Citrus Research & Development Foundation
- Florida Citrus Mutual
- California Citrus Mutual
- Texas Citrus Mutual
- California Citrus Quality Council
- University systems in CA, AZ, TX, LA, and FL
- Citrus Nursery Industry
- USDA Agriculture Research Service
- USDA National Institute for Food and Agriculture
- USDA Animal and Plant Health Inspection Service

CITRUS HEALTH RESPONSE PROGRAM

Topics:

- **U.S. Citrus Production**
- **Current ACP/HLB Situation**
- **Short-term Strategy**
- **Long-term Strategy**

U.S. CITRUS PRODUCTION

- **Bearing Acreage:**
  - **Florida** **538,900 acres**
  - **California** **253,000 acres**
  - **Texas** **27,300 acres**
  - **Arizona** **21,800 acres**
  - **Alabama** **400 acres**
  - **Louisiana** **316 acres**

Sources: USDA NASS and & LSU

U.S. CITRUS PRODUCTION

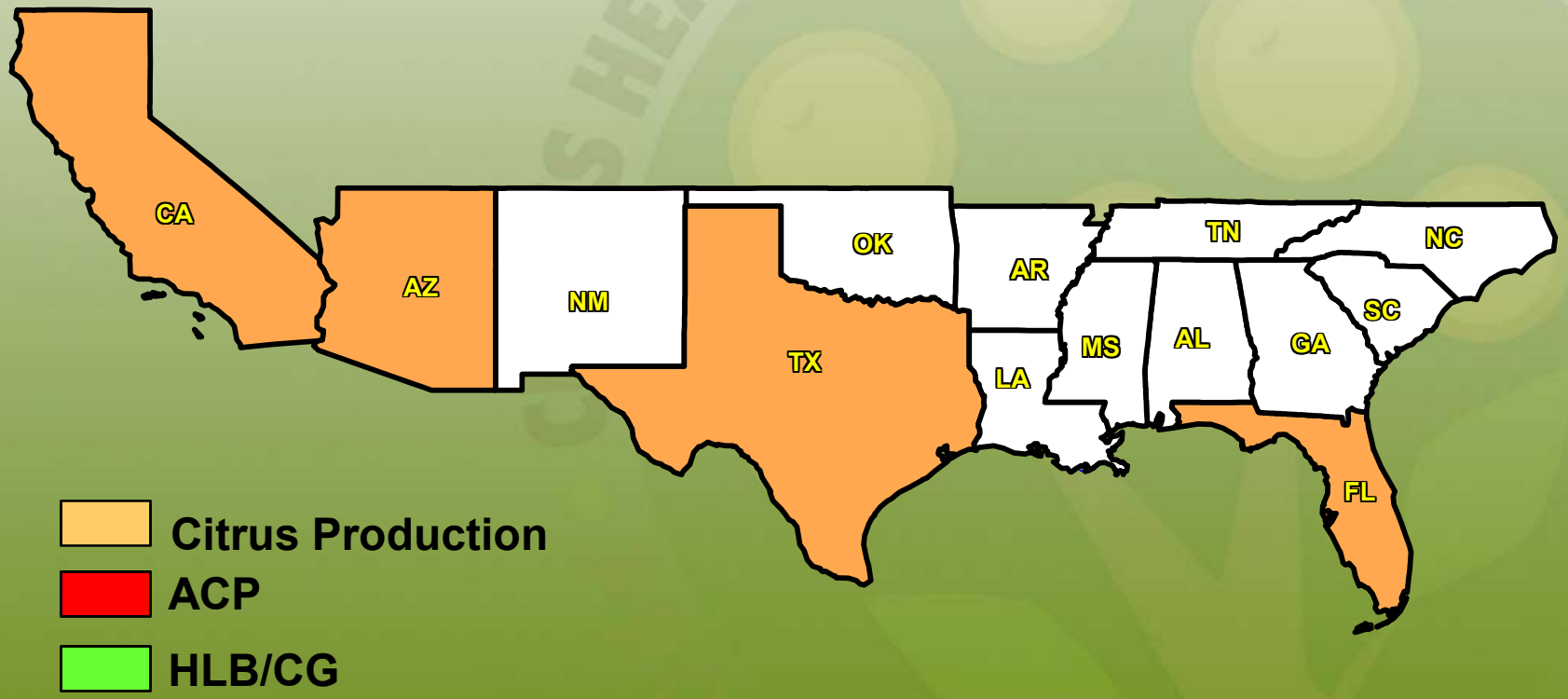
- **Annual Production Value:**
  - Florida $1.75 Billion
  - California $1.37 Billion
  - Texas $72.6 Million
  - Arizona $61.8 Million
  - Alabama $ 1.6 Million

U.S. Total = $3.26 Billion

Sources: USDA NASS, Packinghouse door equivalent

CURRENT SITUATION

- **Citrus Producing States**



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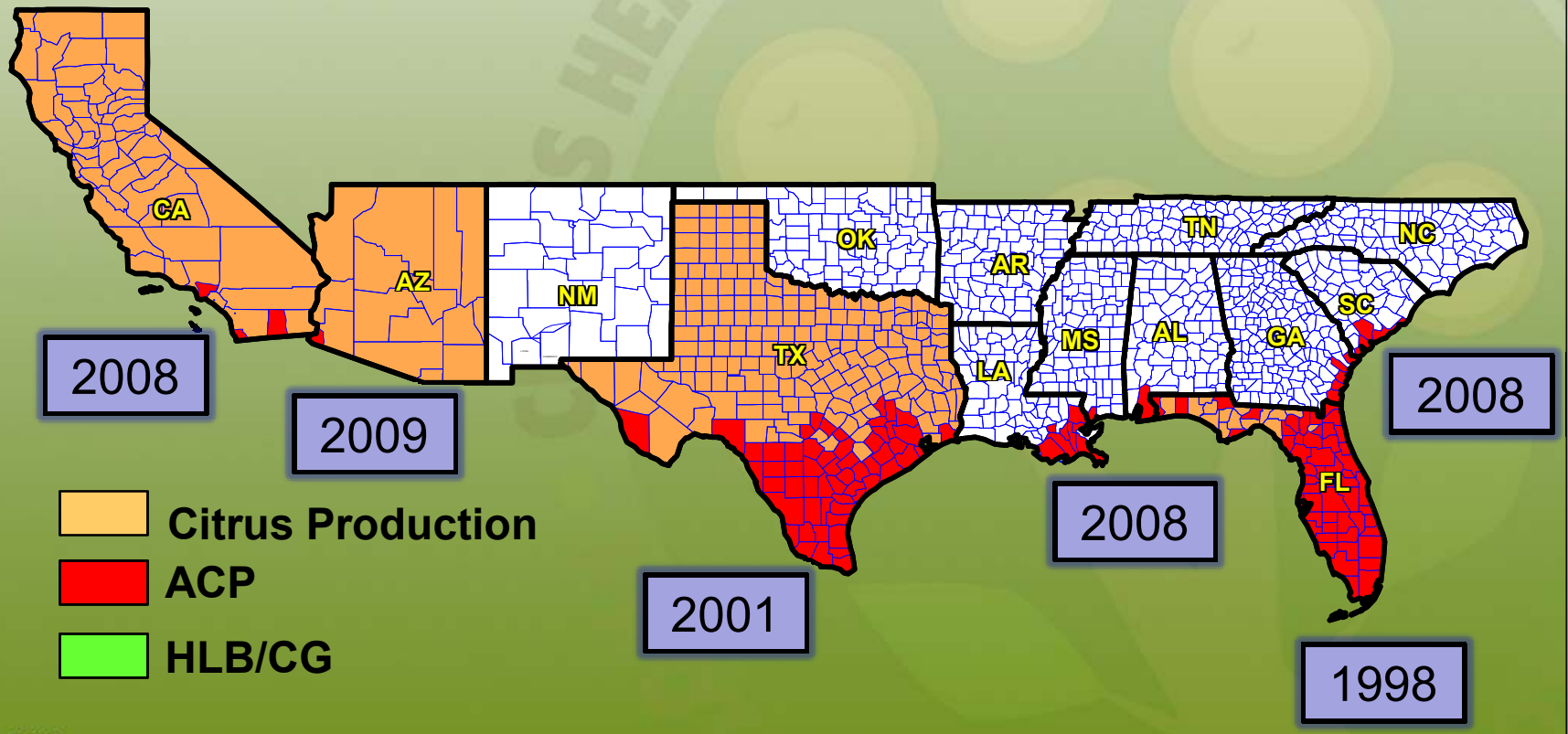

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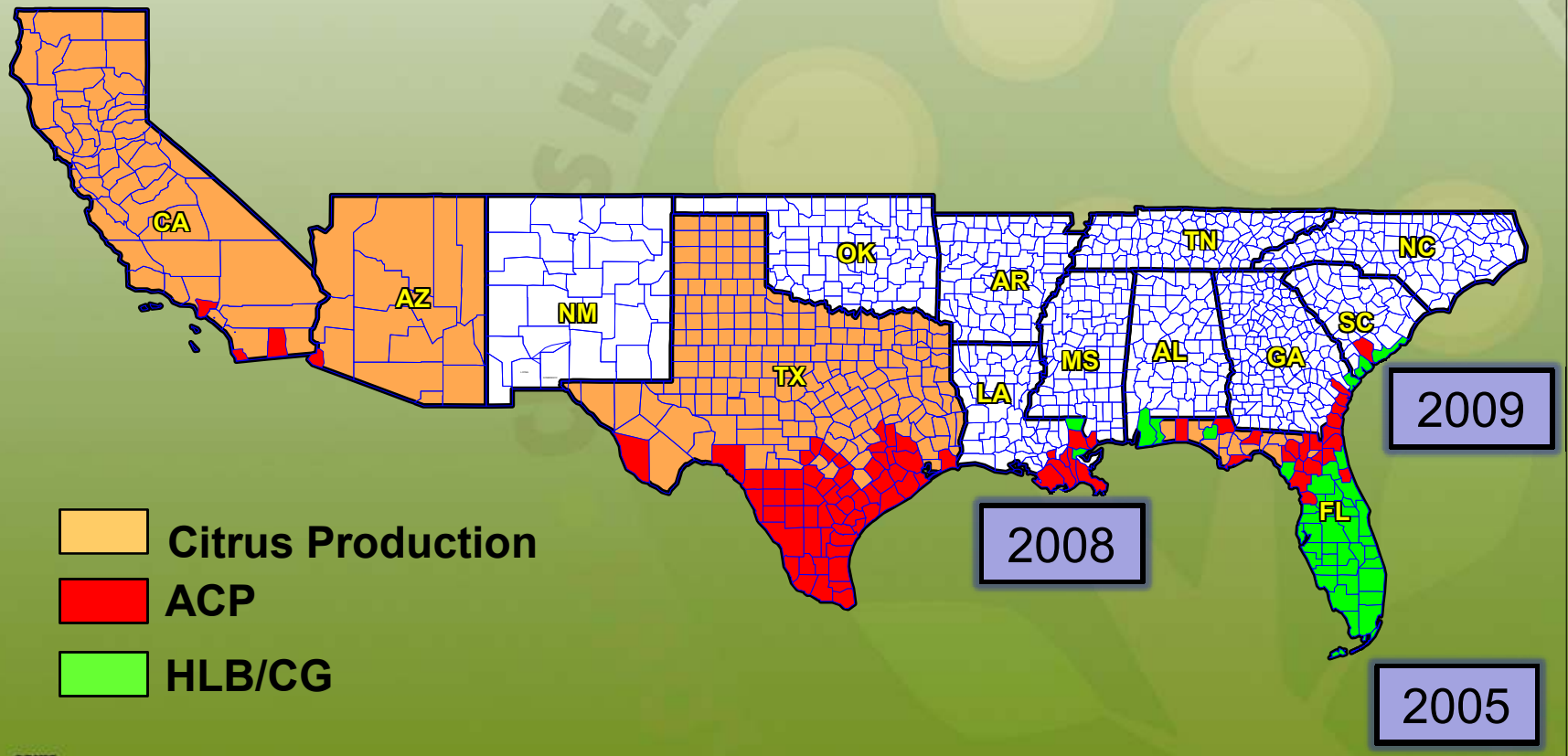

CITRUS HEALTH RESPONSE PROGRAM

GUIDING PRINCIPLES

- **HLB is a real threat to U.S. citrus production**
- **Suppression of ACP is a key short-term priority**
- **National coordination of ACP/HLB research**
- **Regulatory framework to protect foundation germplasm and nursery stock**
- **Long-term solutions for sustainable management strategy or eradication of HLB**
- **National coordination of CHRP implementation**

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GUIDING PRINCIPLES

- **Increase public awareness and outreach**
- **Need to coordinate with Mexico and Central American countries**
- **Develop strategy to address abandoned groves**
- **Need to control ACP in urban settings and organic production systems**

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GUIDING PRINCIPLES

- **Short-term goal – vector suppression to prevent or slow the spread of HLB into healthy citrus groves and nursery stock production systems**

- **Long-term goal – identify the necessary tools to provide sustainable management strategy or eradication of HLB**

SHORT-TERM STRATEGY

- Prevent or slow the spread of ACP and HLB to non-infested citrus producing areas
- Suppress and manage ACP and HLB in infested areas

  - Early detection & rapid response
  - Area-wide pest management (pest control districts)
  - Safeguarding measures and regulatory enforcement
  - Targeted research and method developments
  - Communication and Outreach

SHORT-TERM STRATEGY

- **California:**
  - **ACP Detection and Delimiting Survey**
    - Yellow Panel Traps (40,000)
    - Visual and Sweep Net Survey
  - **HLB Survey**
    - Tissue samples (13,500)
  - **ACP Treatment**
    - All host plants within 400 meter
    - Soil drench with imidacloprid
    - Foliar application with cyfluthrin
    - 22,786 sites treated

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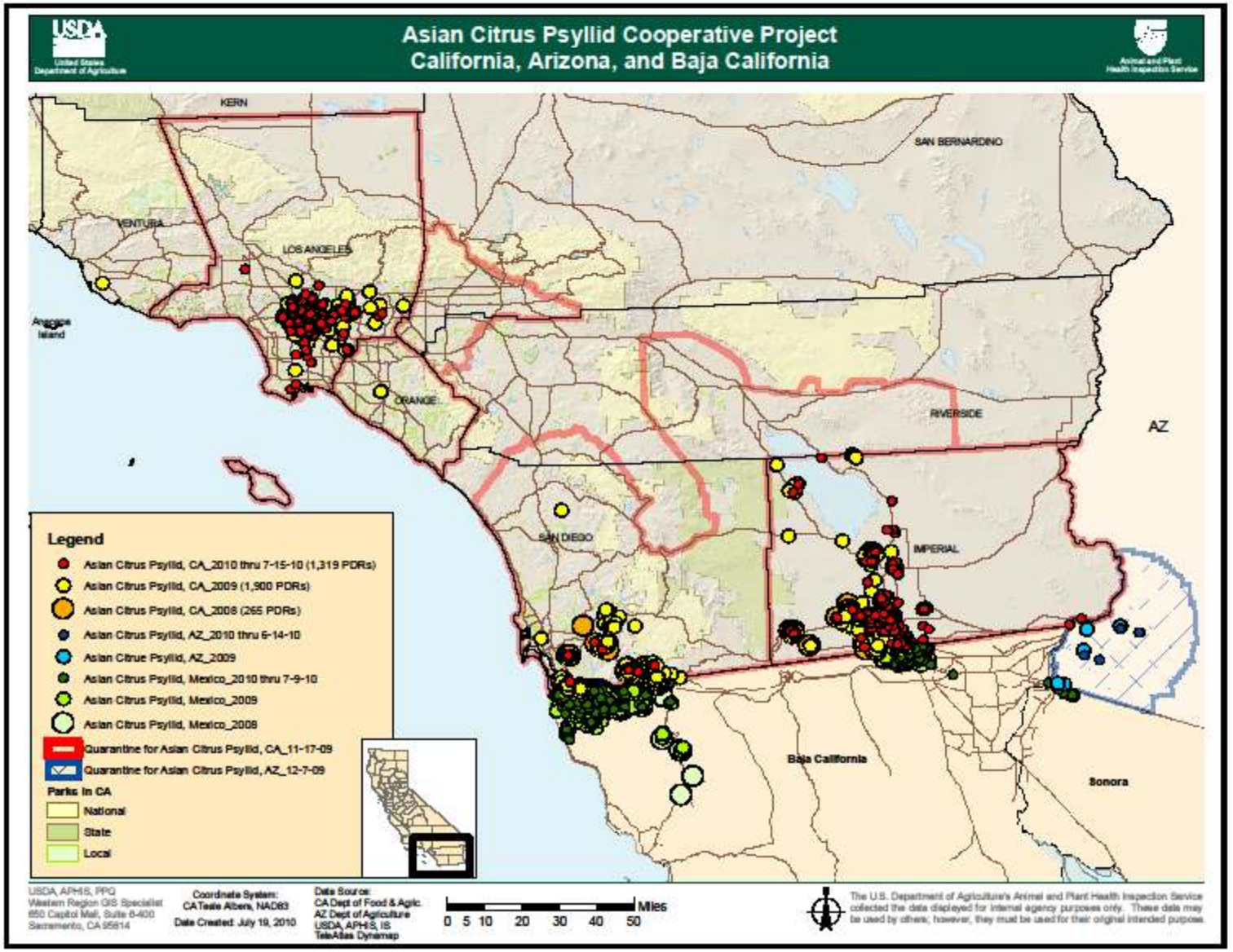
SHORT-TERM STRATEGY

Arizona:

- **ACP Detection and Delimiting Survey**
  - Yellow Panel Traps (9,388)
  - Visual and Sweep Net Survey (91,457)
- **HLB Survey**
  - Tissue samples (110)
- **ACP Treatment**
  - All host plants within 400 meter
  - Soil drench with imidacloprid
  - Foliar application with cyfluthrin
  - 833 sites treated

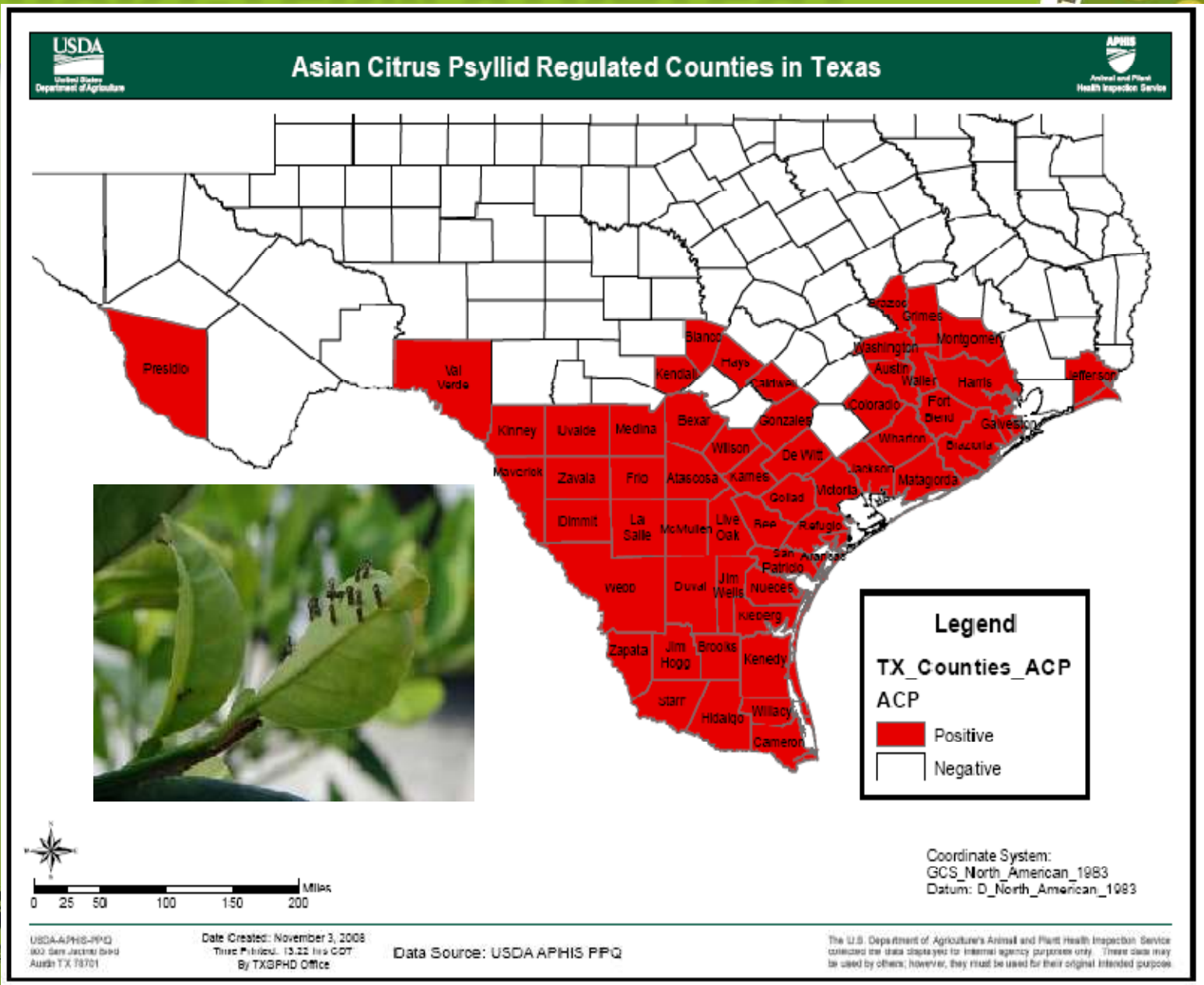
SHORT-TERM STRATEGY



SHORT-TERM STRATEGY

- **Texas:**
  - **ACP Detection and Delimiting Survey**
    - Yellow Panel Traps
    - Visual and Sweep Net Survey (24,018)
  - **HLB Survey**
    - Tissue samples (18,501)
  - **ACP Treatment**
    - Area-wide suppression program
    - Foliar applications with organophosphates
    - 15,000 acres treated

SHORT-TERM STRATEGY

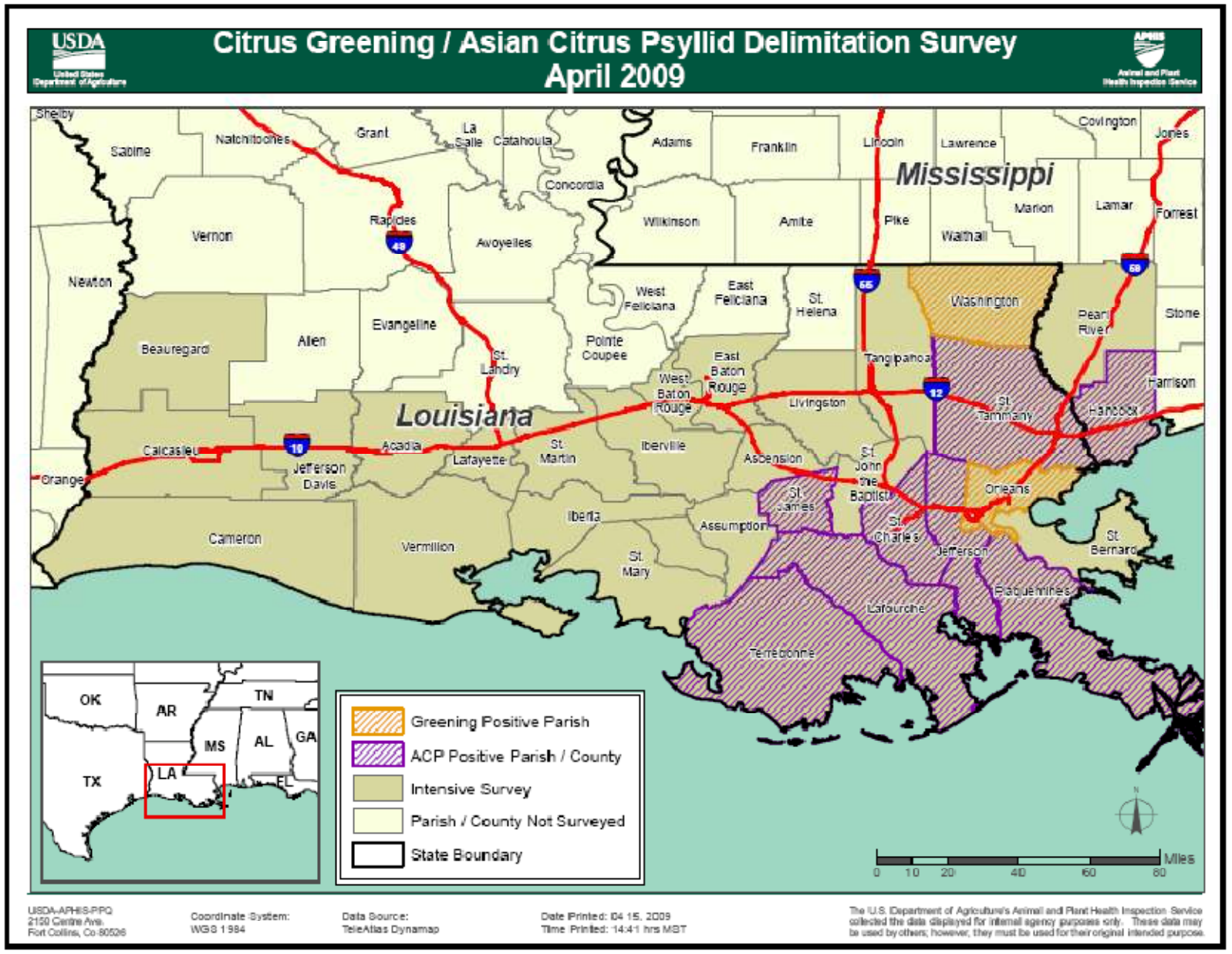


SHORT-TERM STRATEGY

Louisiana:

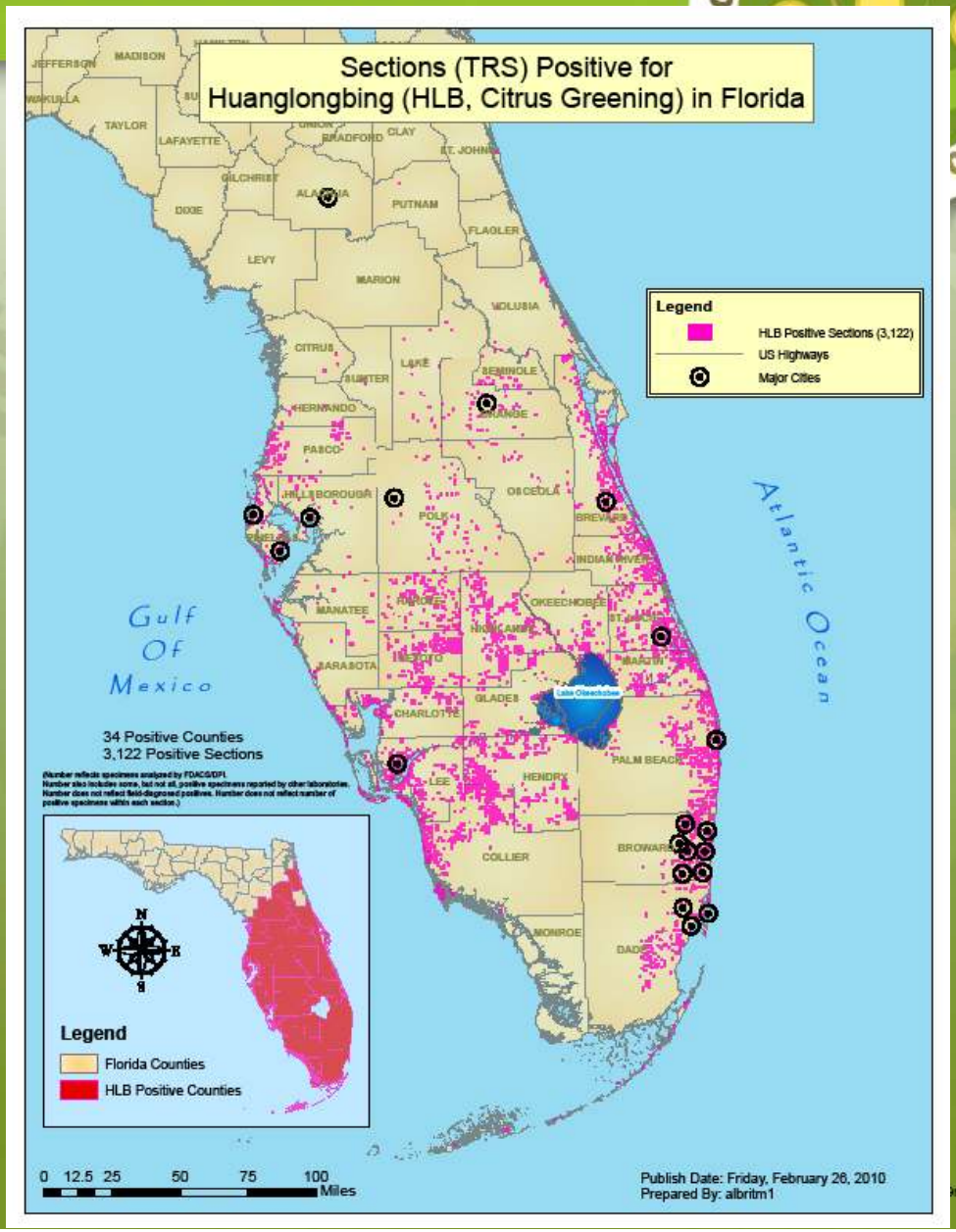
- **ACP Detection and Delimiting Survey**
  - Yellow Panel Traps
  - Visual and Sweep Net Survey (7,223)
- **HLB Survey**
  - Tissue samples (2,201)
- **ACP Treatment**
  - Area-wide suppression program
  - Foliar applications with organophosphates
  - 16 trees removed

SHORT-TERM STRATEGY



SHORT-TERM STRATEGY

- **Florida:**



SHORT-TERM STRATEGY

- **Florida:**
  - **ACP Population Monitoring**
    - Yellow Panel Traps (10,000 groves)
    - Visual and Sweep Net Survey
  - **HLB Survey**
    - Tissue samples
  - **ACP Treatment**
    - Area-wide Suppression Program
    - Timely applications with insecticides

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SHORT-TERM STRATEGY

Florida:

- **Citrus Black Spot (March 2010)**
  - Confirmed in 13 grove blocks
  - Survey of 34,500 commercial
  - 11,000 residential properties
  - All lemon groves
  - Quarantine
  - Fall confirmatory survey
  - Long-term strategy

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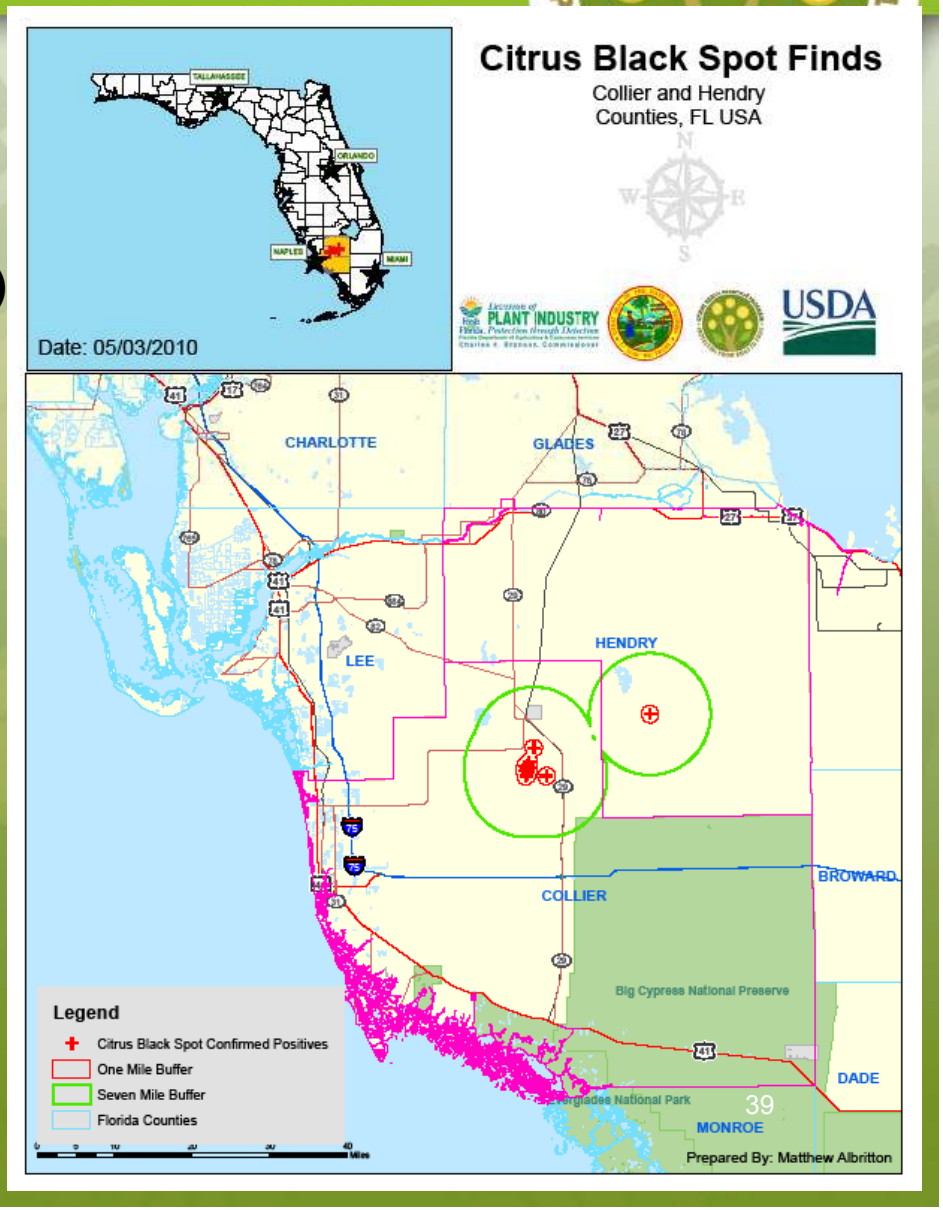
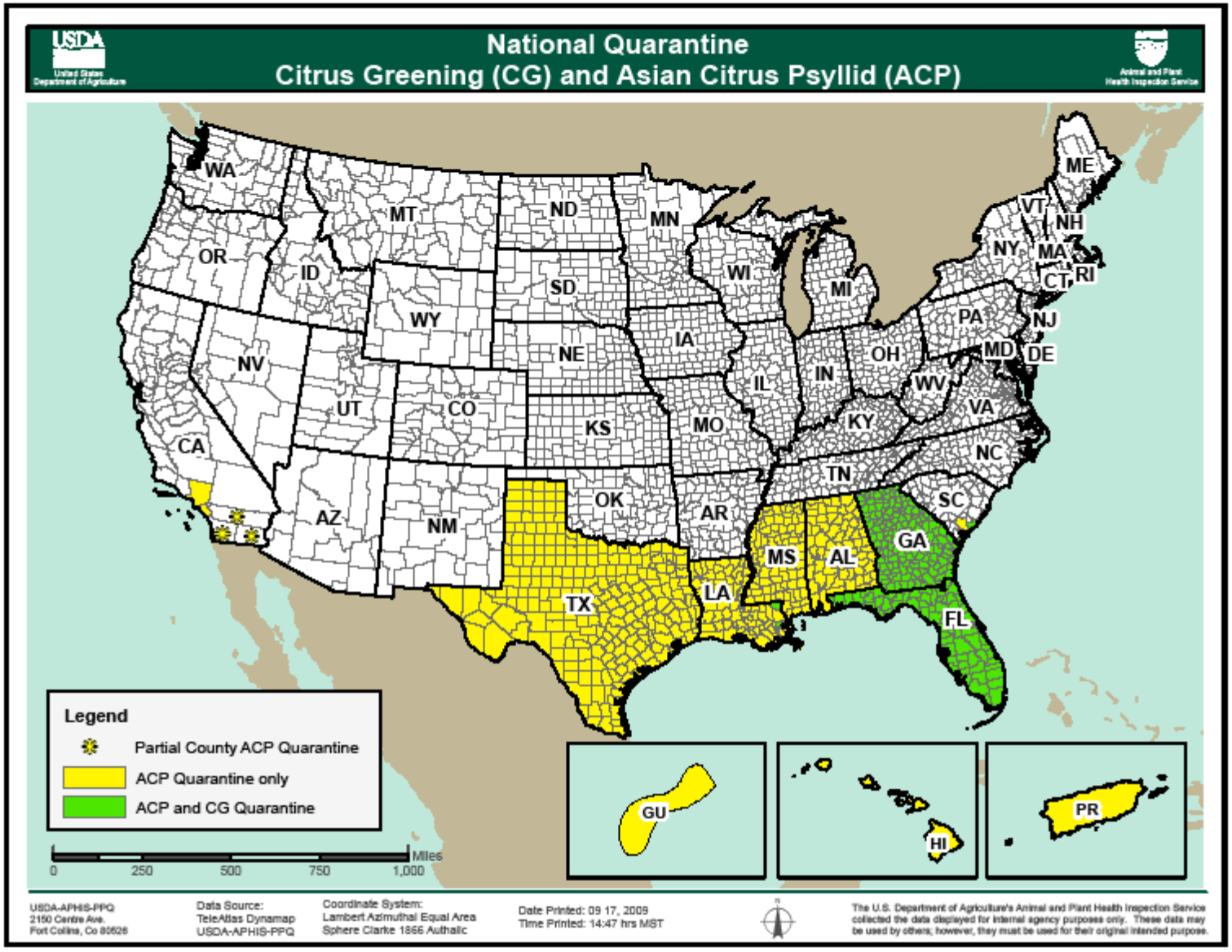


SHORT-TERM STRATEGY

- **ACP and HLB Quarantine:**

SHORT-TERM STRATEGY



SHORT-TERM STRATEGY

ACP and HLB Quarantine:

Nursery Stock

- Clean stock program source material (Budwood)
- Facility - citrus nursery stock must be grown in a pest-exclusionary screenhouse
- Testing - visual inspection, sampling, trapping, and testing every 30 days
- Treatment – soil drench every 6 month and foliar treatment 10 days prior to movement

LONG-TERM STRATEGY

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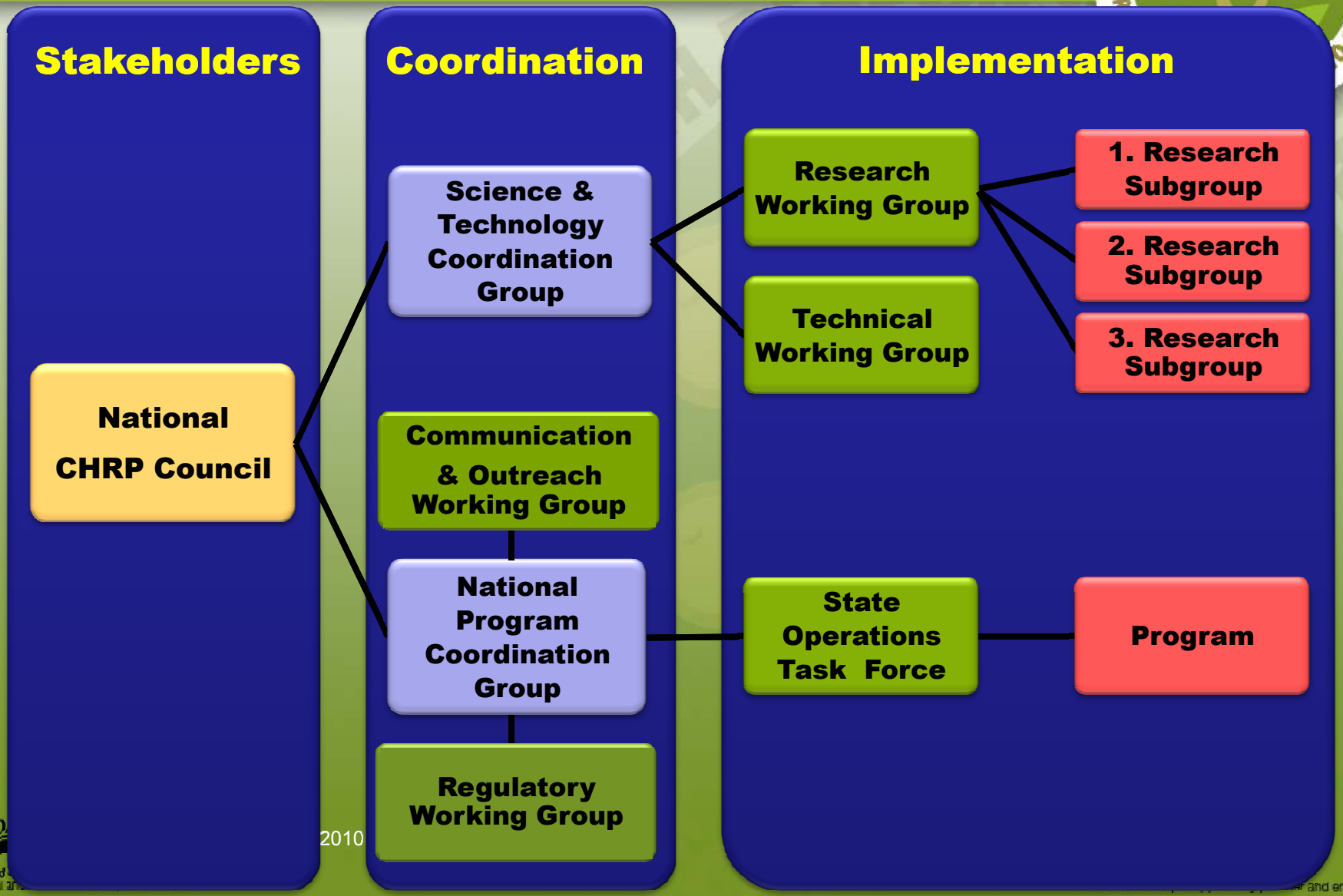

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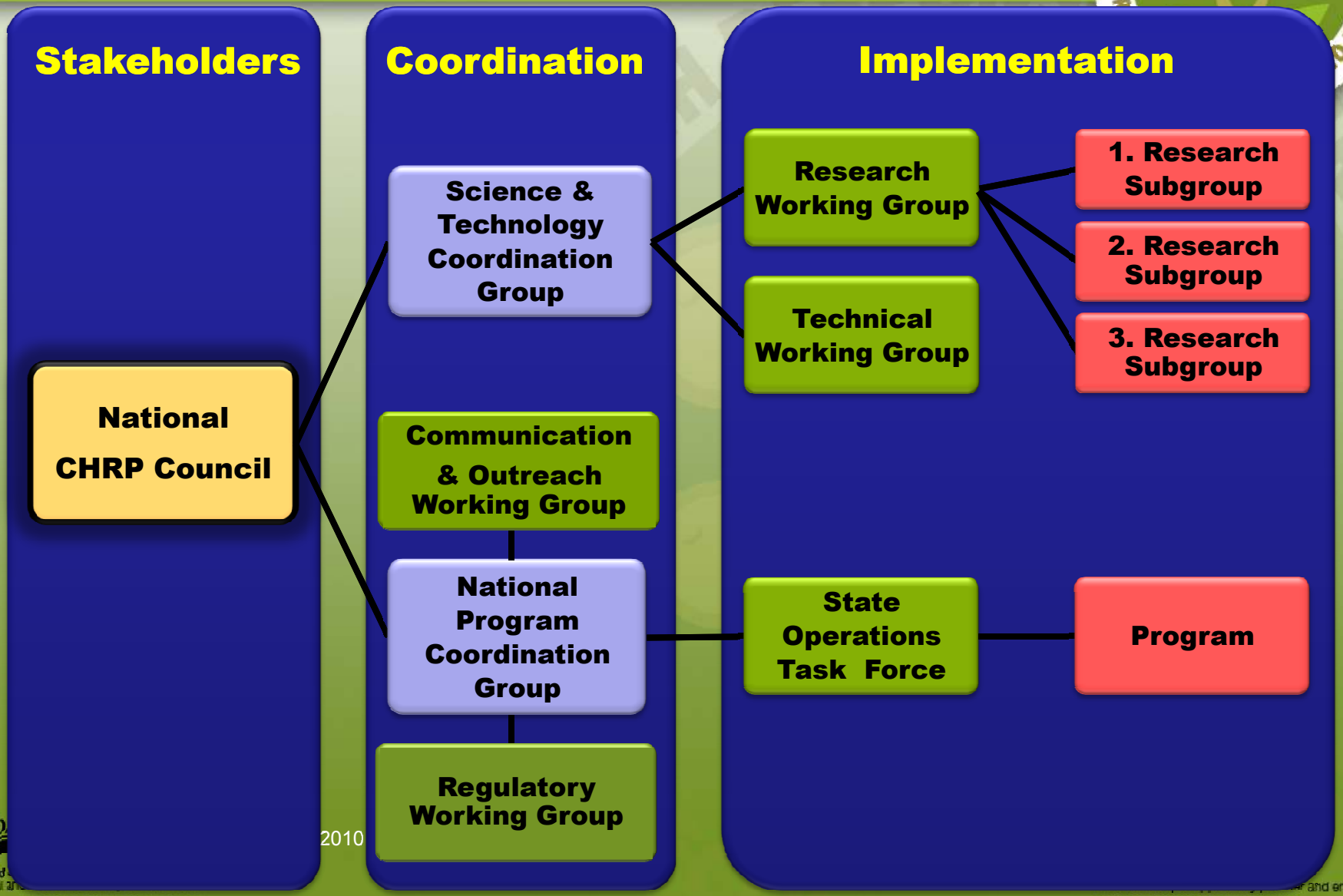
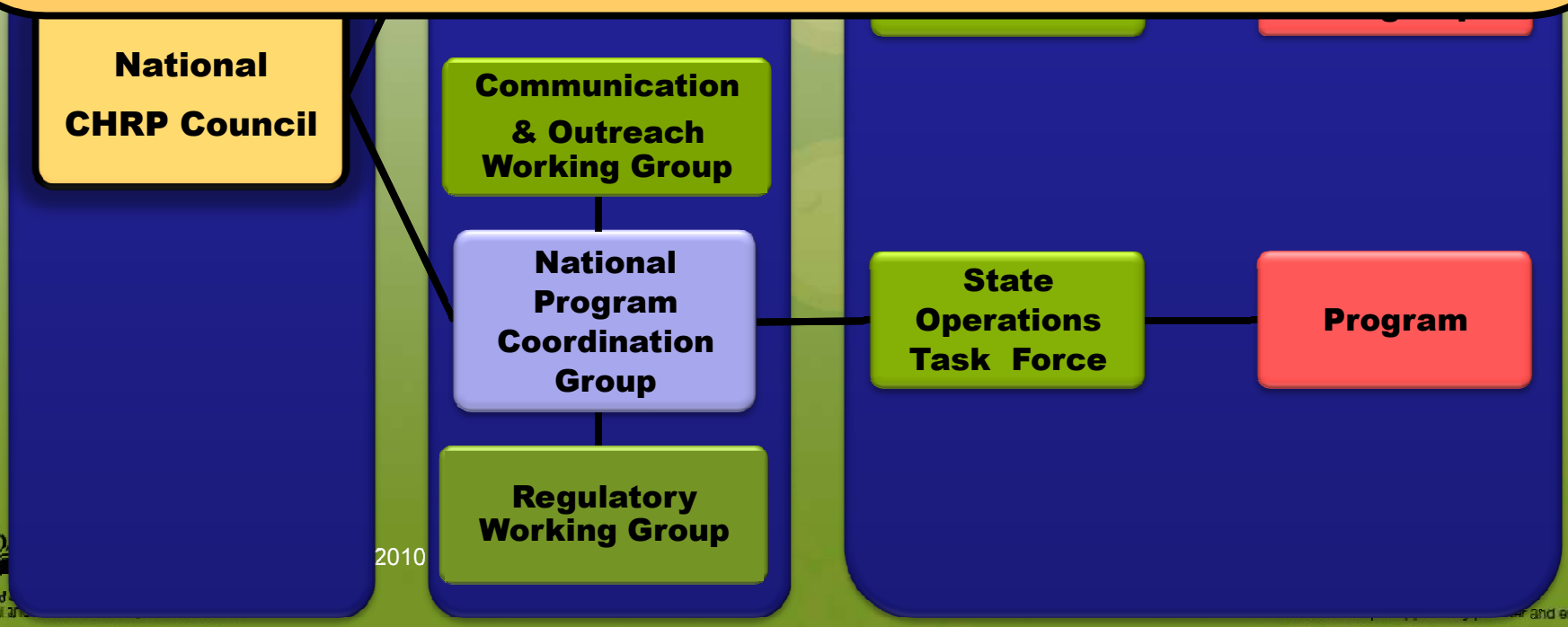


National CHRP Council

Joel Nelsen	President, California Citrus Mutual
Mike Sparks	Executive Vice President, Florida Citrus Mutual
Ray Prewett	President, Texas Citrus Mutual
Ted Batkin	President, California Citrus Research Board
Dan Gunter	COO, Citrus Research & Development Foundation
Michael Wootton	Senior Vice President, Sunkist, Inc.
Jim Cranney	President, California Citrus Quality Council



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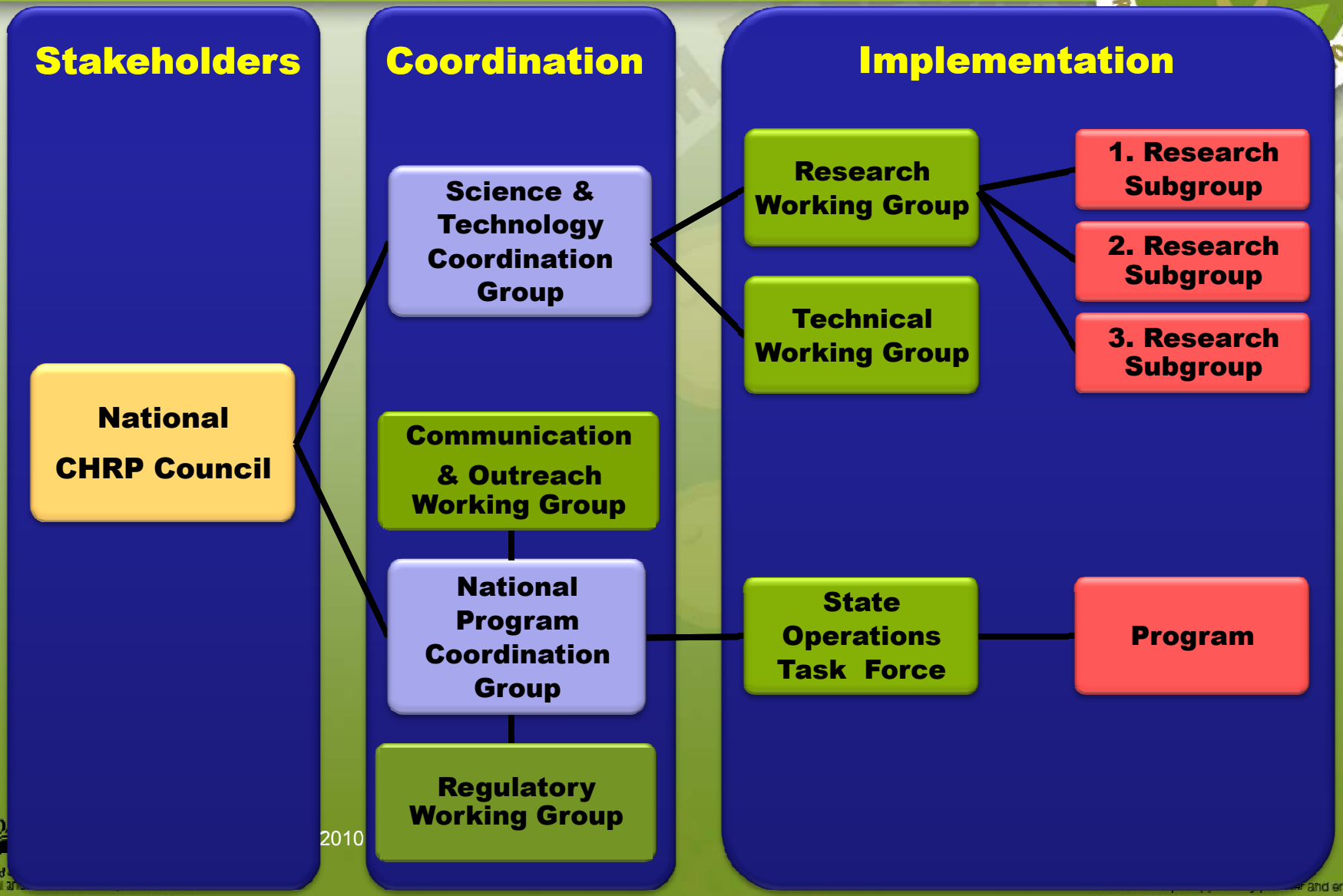

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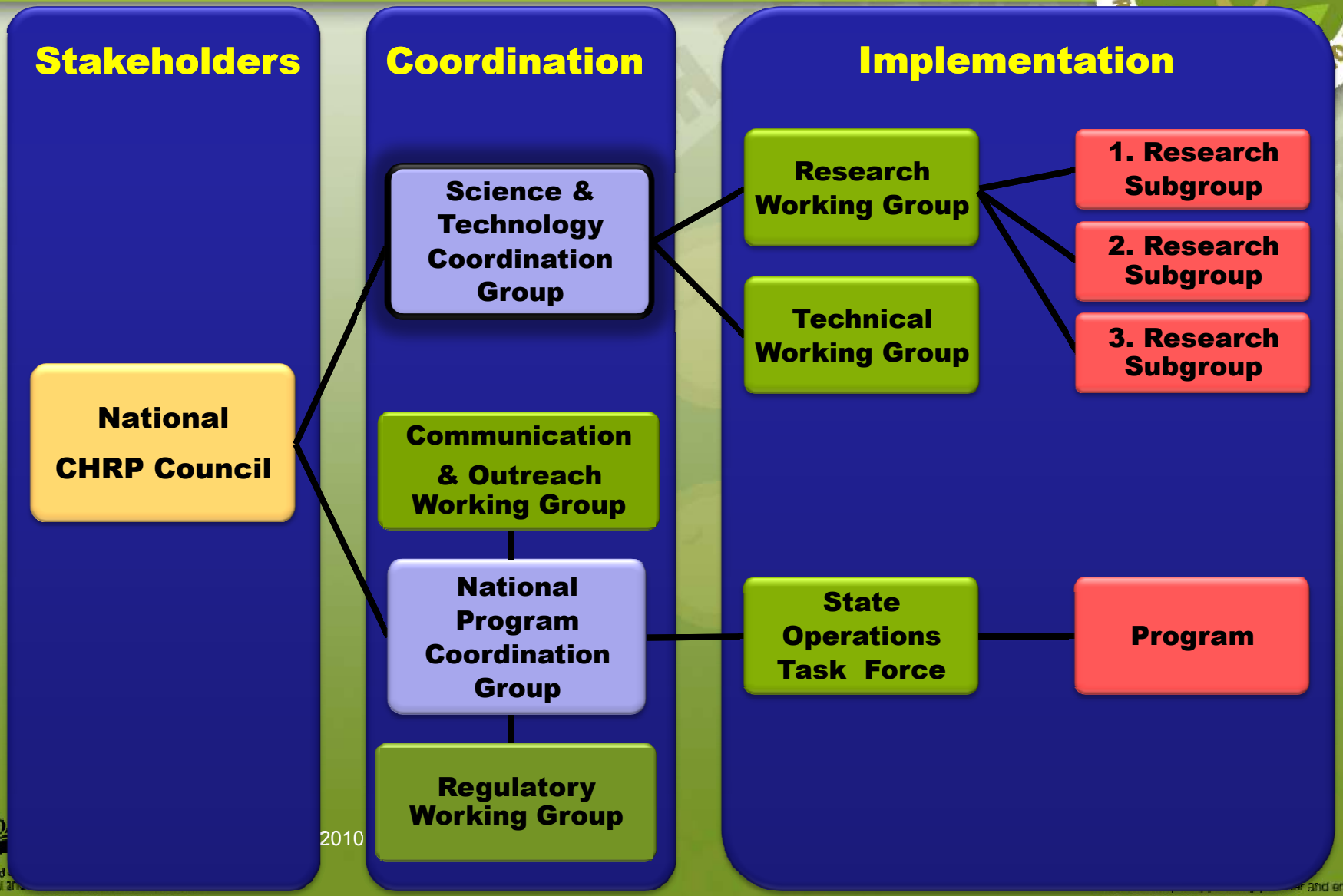

LONG-TERM STRATEGY

Stakeholders | **Coordination** | **Implementation**

Science and Technology Coordination Group

Gail Wisler, Co-chair	USDA, ARS, Beltsville
Mary Lou Polek, Co-chair	California Citrus Research Board
Kevin Hackett	USDA, ARS, Beltsville
Kitty Cardwell	National Institute of Food and Agriculture
Rick Meyer	National Institute of Food and Agriculture
Phil Berger	USDA, APHIS, PPQ, CPHST
Charla Hollingsworth	USDA, APHIS, PPQ, CPHST
Dennis Gross	Texas A & M University
Tom Turpen	Citrus Research and Development Foundation
George Bruening	UC-Davis
Ted Batkin	California Citrus Research Board
Dan Gunter	Florida Citrus Research and Development Foundation

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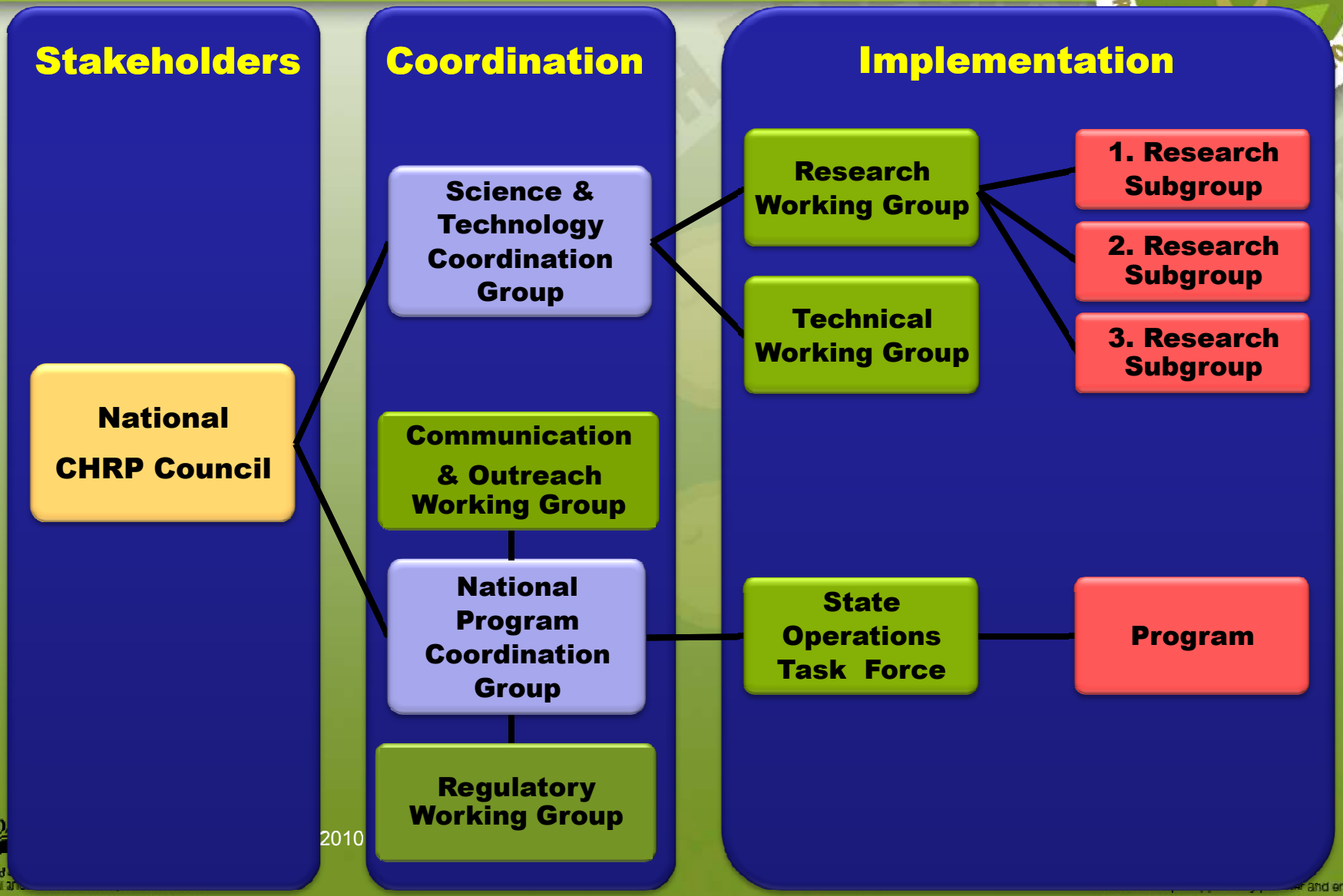

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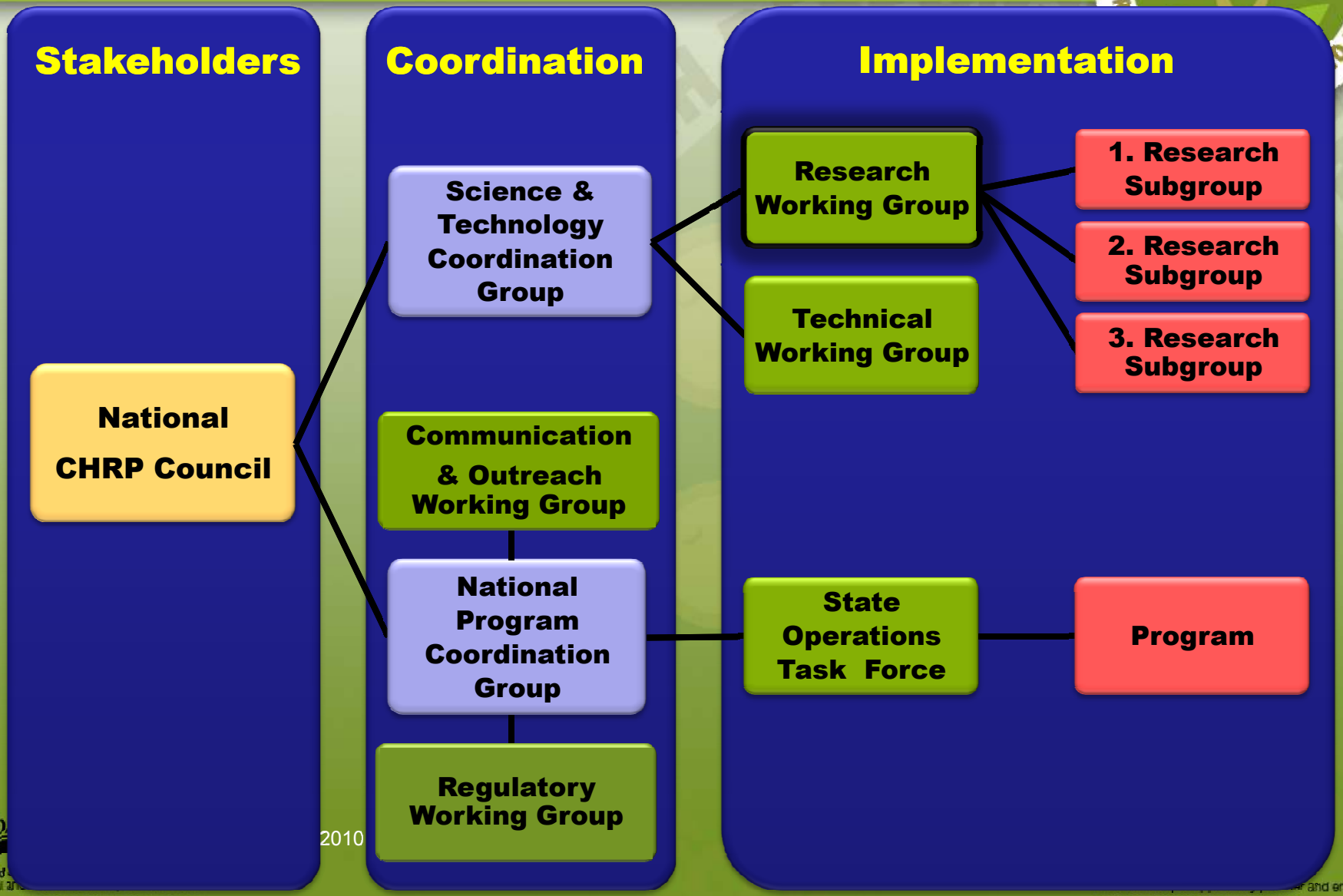


LONG-TERM STRATEGY

Stakeholders | Coordination | Implementation

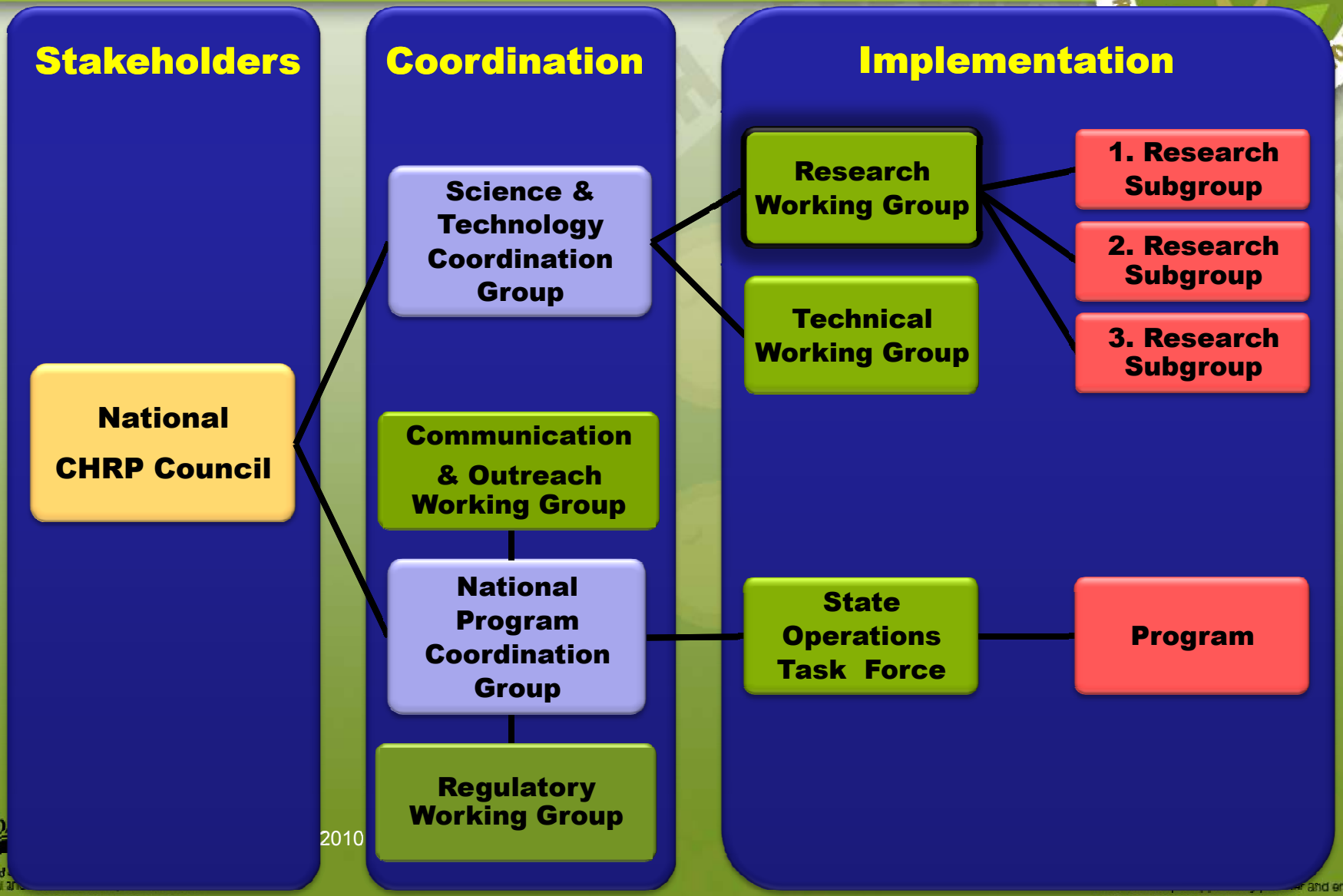
Research Working Group

Deb Fravel, Co-chair
Mike Irey, Co-chair
Outcome-1: Keep groves currently affected by ACP and HLB productive

Kris Godfrey, Co-chair
Mamadu Satamou, co-chair
Outcome-2: Prevent or slow the spread of ACP and HLB

Ed Stover, Co-chair
Gloria Moore, co-chair
Outcome-3: Keep citrus trees free of HLB and ACP

WHERE DO WE GO FROM HERE?



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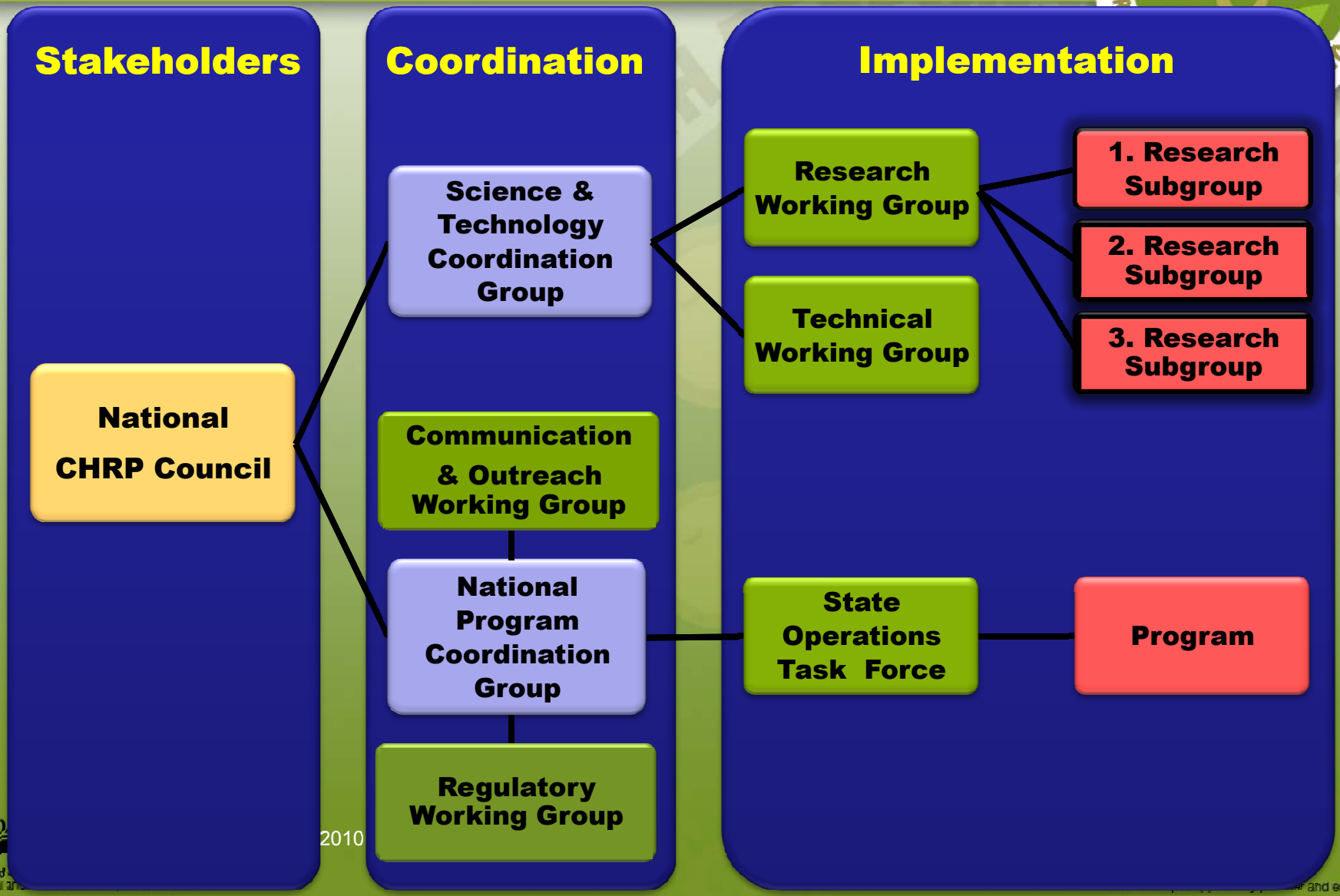

WHERE DO WE GO FROM HERE?

Stakeholders | Coordination | Implementation

Research Subgroup -1

Keep groves currently affected by ACP and HLB productive

Deb Fravel, Mike Irey, Calvin Arnold, Jackie Burns, Ed Civerolo, Abhaya Dandekar, Wayne Dixon, Tim Gottwald, Dan Gunter, Kevin Hackett, and Ariena van Bruggen

WHERE DO WE GO FROM HERE?

Stakeholders | Coordination | Implementation

Research Subgroup -2

Prevent or slow the spread of ACP and HLB

Kris Godfrey, Mamadu Satamou, John Adamczyk, Jo-Ann Bentz Blanco, Susan Halbert, David Hall, Bob Mangan, Rick Meyer, Michael Rogers, Donald Seaver

WHERE DO WE GO FROM HERE?

Stakeholders | Coordination | Implementation

Research Subgroup -3

Keep citrus trees free of HLB and ACP

Ed Stover, Gloria Moore, Bill Belknap, Lynn Garrett, Charla Hollingsworth, Jack Okamuro, Ralph Scorza, Scott White, and Bruce Carey

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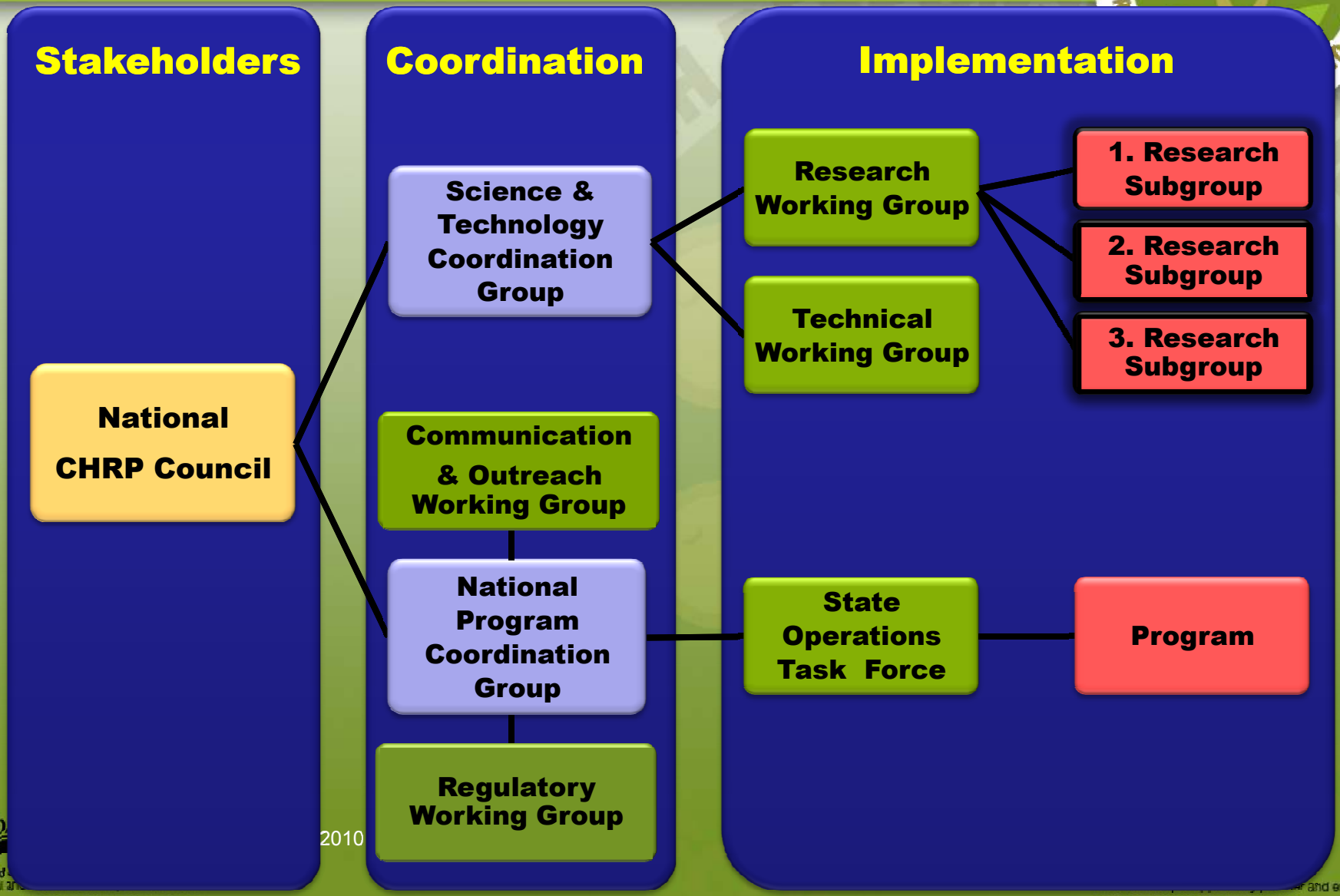

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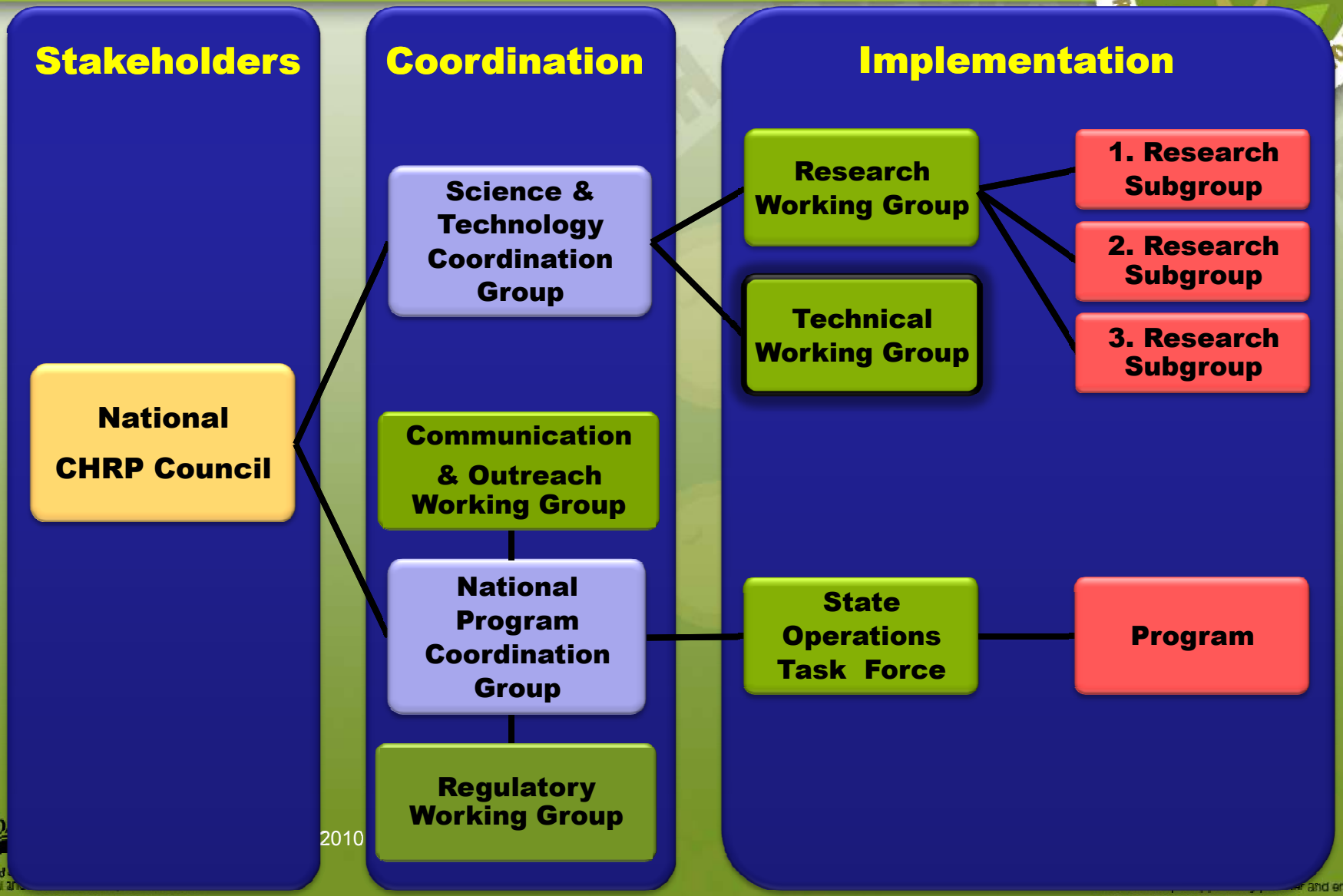

WHERE DO WE GO FROM HERE?

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Technical Working Group

Phil Berger	USDA, APHIS, PPQ
Charla Hollingsworth	USDA, APHIS, PPQ, CPHST
Tim Gottwald	USDA, ARS,FL
Wayne Dixon	Florida Department of Agriculture
Ed Civerolo	USDA, ARS, CA
David Hall	USDA, ARS,FL
John Dagraca	Texas A&M University
Michael Rogers	UF / IFAS / Citrus Research and Education Center

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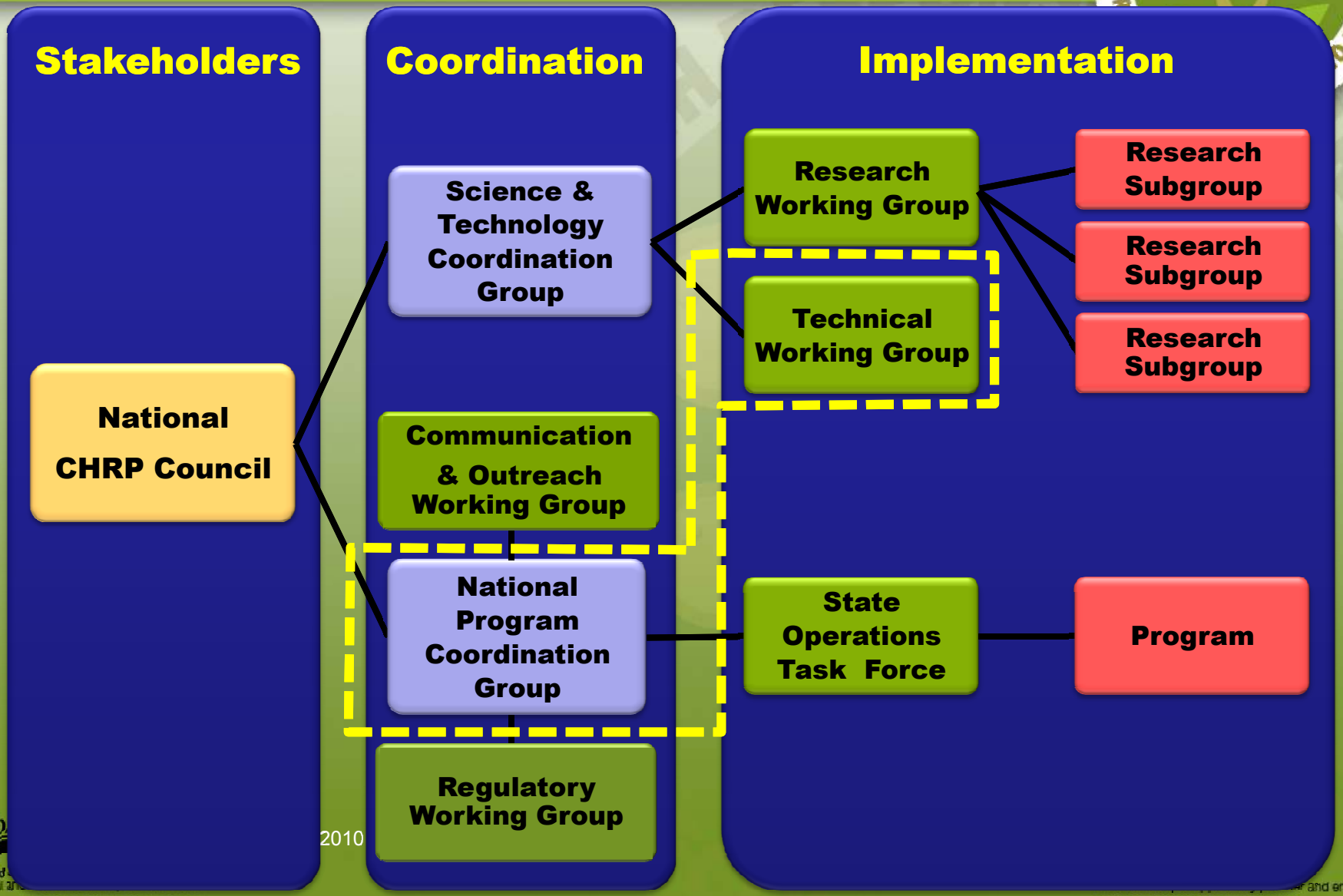

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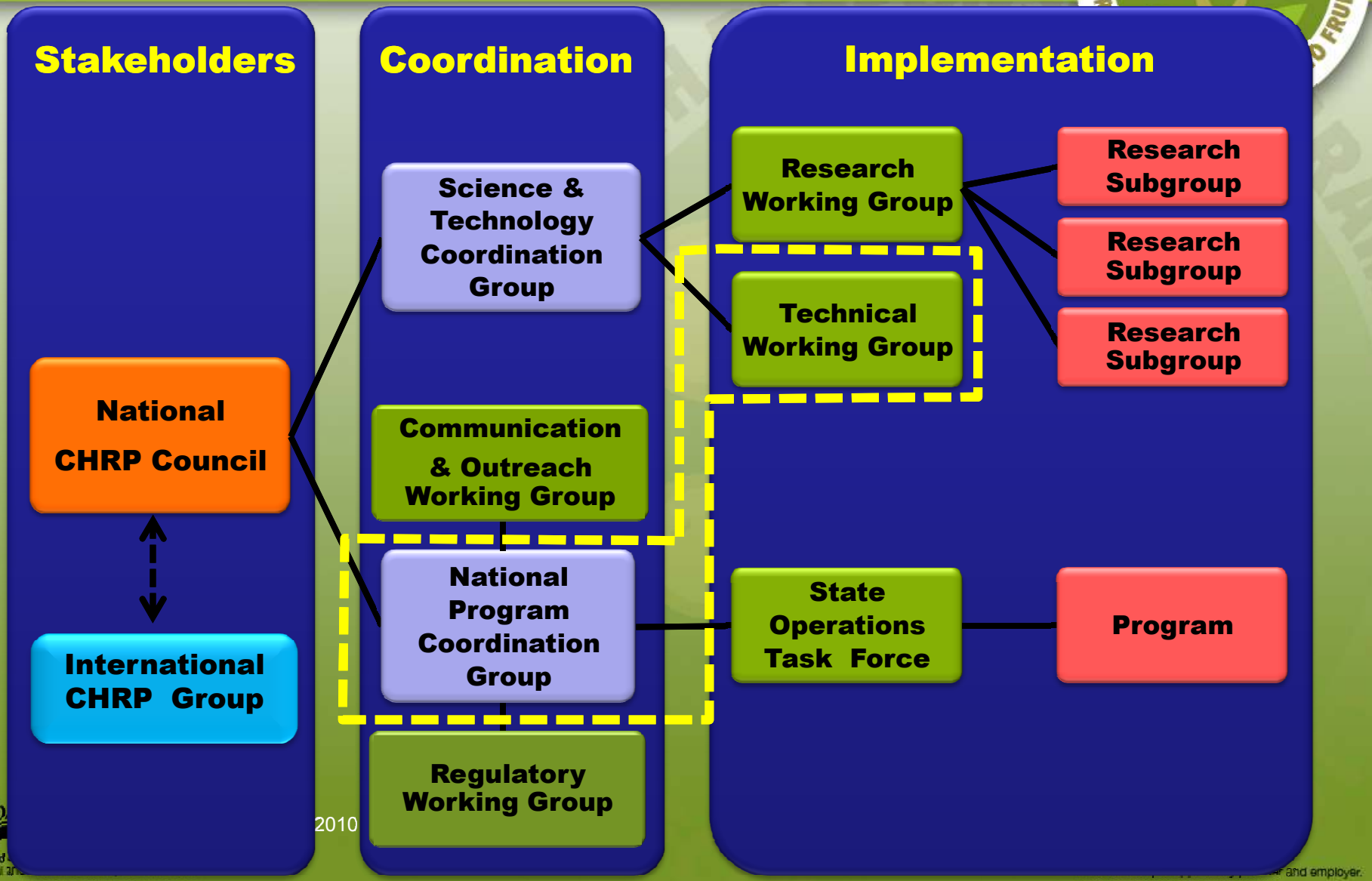

Thank You!

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