

Food Fortification to Reduce Micronutrient Malnutrition in Cambodia

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Outline

- ☐ RACHA's profile
 - ☐ Current Micronutrient Status in Cambodia
 - ☐ Policy Context for Food Fortification
 - ☐ Fortification Achievements and Activities
 - ☐ The Way Forward
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RACHA's Profile

- ❑ USAID formed RACHA in late 1996 (INGO)
 - ❑ In February 2003 RACHA received recognition as a Cambodian NGO
 - ❑ Direct funding from USAID Cambodia since 2004
 - ❑ Started with 3 ODs within 3 provinces
 - ❑ Current program: Community MNCH, HIV/AIDS and Infectious Diseases covering 22 ODs within 7 provinces
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Status: Anemia & Vitamin A Deficiency in Cambodia

MNM Prevalence

Anemia	
Pregnant Women (CDHS 2005)	58%
Women Reproductive Age (CDHS 2010)	44%
Children < 5 Years (CDHS 2010)	41%
Vitamin A Deficiency	
Children < 5 Years (CNMS 2000)	22%
Night Blindness: Pregnant Women (CDHS 2005)	8%

Framework for Food Security & Nutrition

Goals & Objectives:

- **FFSN Goal:** *Ensure poor and food-insecure Cambodians have improved access to sufficient, safe, and nutritious food by:*
 - Objective 1: Increasing and ensuring food availability.
 - Objective 2: Improving food accessibility.
 - **Objective 3:** Ensuring optimal food use and utilisation through health and nutrition education improving child-feeding practices and maternal nutrition, micronutrient supplementation and fortification programmes
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Framework for Food Security & Nutrition

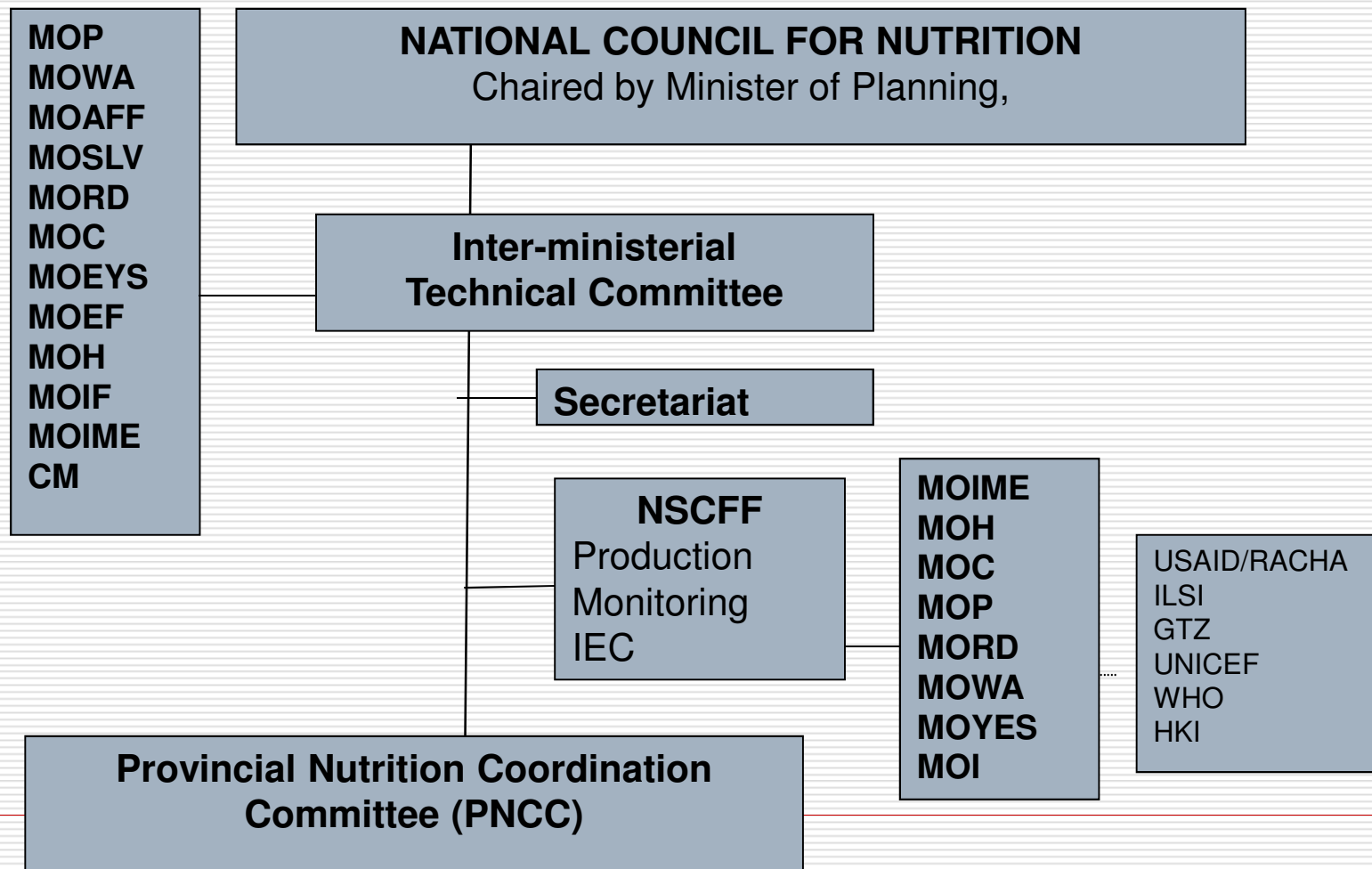
Key Fortification Actions in Cambodia

Reducing Micronutrient Malnutrition in Children and Women

☐ Priority Actions:

- Establish a national subcommittee of National Council for Nutrition (NCN) for food fortification
 - ☐ National Subcommittee for Food Fortification (NSCFF)
 - Develop and implement an overall national policy on micronutrient fortification of food in cooperation with the private sector
 - NCN and NSCFF to develop and implement a national programme on iron fortification of staple food
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Structure for Fortification Policy & Coordination



Encouraging Private Sector Participation & Building Consumer Awareness

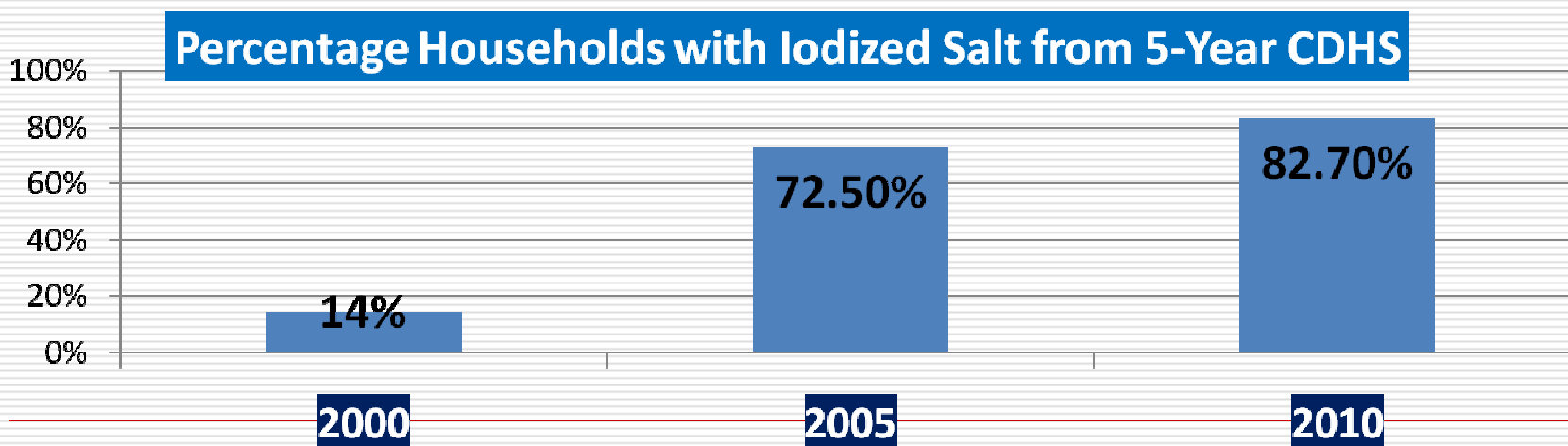
- ❑ **Official National Food Fortification Logo**
 - Prakas # 004 dated 17 February 2010
 - Approved by National Council for Nutrition
 - Producers request official logo from the NSCFF

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Achievement of Salt Iodization Program

- ❑ Mandatory Regulation
 - Sub-Decree No. 69 on Management of Iodized Salt was issued by Council of Ministers on 12/09/2003
- ❑ Sustainable Domestic Financing Approach
 - Salt Producers Community
 - Some support to National Sub Committee for Control of IDD by Unicef



Current & Planned Fortified Foods via World Food Program

- ☐ Corn Soy Blend
 - Multiple Micronutrients
 - ☐ Vegetable Oil
 - Vitamin A
 - ☐ Rice Acceptance Trials
 - Multiple Micronutrients
 - ☐ Issue: products mainly imported.
 - Not produced or fortified domestically.
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Fortified Wheat Flour

- ❑ Consumption rose 60% 2000-2008 (FAO) but mostly imported from Thai & Vietnam.
- ❑ Men Serun – 1 Domestic Mill
 - Partnership with IRD
 - ❑ 3600 MT Flour
 - ❑ 23 million pack noodles
 - ❑ Plan 1 million packs
- ❑ Difficult to Sustain
 - Little regulation
 - Low consumer awareness
 - Competitive pressure from imported noodles which dominate the market.



Fortified Instant Porridge

- ❑ Complementary food for children 6 to 24 months by GRET and IRD
- Multiple Micronutrients



Fish & Soy Sauce Fortification with Iron

- 2nd National Workshop on IDA Control & Prevention:
 - “The most suitable matrix for iron-fortification in Southeast-Asia seems to be fish-sauce.”
- 4 Years Experience
 - Accepted & Effective Result of Quality Control

Result of Quality Control

Physical chemical-Characteristic	Permissible level		Result
pH	IFFS	4.0 – 6.0	5.16
	IFSS	4.6-5.5	4.72
Density	IFFS	1.150-1.250 g/cm ³	1.19
	IFSS	1.110-1.250	1.11
Acetic Acid	IFFS	2-7.80 g/l	1.79
	IFSS	2 - 8.0 g/l	5.05
Salt	IFFS	>230 g/l	298.86
	IFSS	>150 g/l	148.67
Total Nitrogen (N ₂)	IFFS	> 7.5 g/l	1.89
	IFSS	> 3 g/l	4.79
Iron	IFFS	400mg/l	423.25
	IFSS	400mg/l	525.89

Scenario for 5-Year Action Plan

☐ Objectives:

- Fortify 90% domestic fish & soy sauce production of 81 registered companies
- Achieve import controls to assure 67% imports are fortified

☐ Producer Capacity Building & Support Program

- Based on Experience of Market Trial in 2 Provinces
 - ☐ Technical Assistance
 - ☐ Start-Up Financing

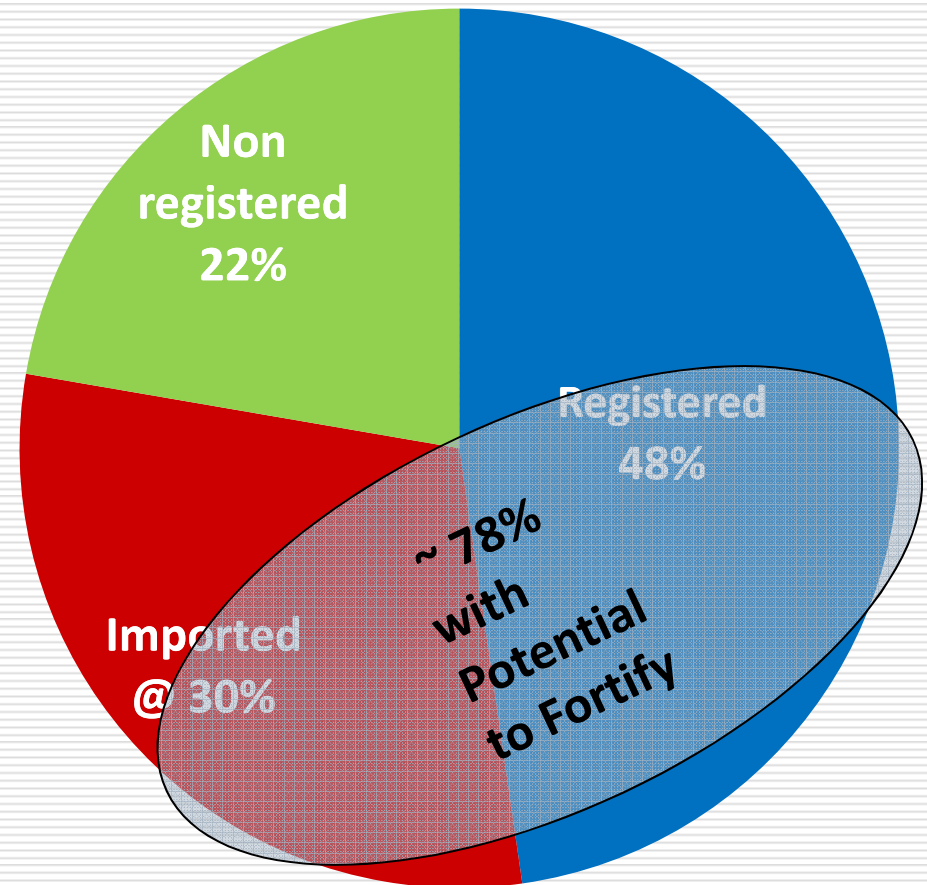
☐ Policy & Regulatory Support

- Mandatory Regulation
 - ☐ MOIME (domestic industry) & CAMCONTROL (Imports)
 - ☐ Marketing & Public Education
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Fish & Soy Sauce Fortification with Iron

□ Coverage Potential:

- ~ 78% from producers w/capacity to fortify.
 - 81 Registered Producers
 - Imports: Thai & Vietnam
- 1000s of Small Producers
 - Rural & Home Production
 - Cannot fortify



Palm Oil Fortification With Vitamin A

- Vegetable Oil Consumption Growing
 - Per capita consumption projected 12-16 g/per day by 2016
 - Palm Oil Development Plans
 - Plantation maturing : CPO supply for 100% of Population plus exports
 - 2014-15 Establish Refinery: 70-100% of local market
 - Public and Private Commitments
 - Government: mandatory regulation and control imports
 - Investor: Integrate fortification into business development plan
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Conclusion

- ☐ Global Alliance for Improved Nutrition awarded \$1.2 million to bring fish sauce fortification to scale.
 - Partnership of Government, Industry, RACHA to establish, expand and sustain national coverage with initial focus on:
 - ☐ Fish sauce with Iron
 - ☐ Vegetable Oil with Vitamin A
 - ☐ As national food industry develops, seek opportunities to integrate strategies and financing for additional vehicles:
 - Wheat flour & Noodle products
 - Rice
 - Complementary Foods
 - Value Added Products
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Thank You!

