Fortification of Unbranded Palm Oil in Indonesia: Public–Private Initiative, from Pilot to Large Scale

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Bangkok, 10-11 October 2013
RATIONAL FOR PALM OIL FORTIFICATION

STEPS TOWARD MANDATORY PALM OIL FORTIFICATION
LESSONS LEARNT
WHAT NEXT
Xerophthalmia has decreased to 0.33% in 1992, a level at which vitamin A deficiency was no longer considered a public health problem, however low serum vitamin A concentrations (defined as < 5% of children with Vitamin A deficiency), persists as a public health problem in Indonesia, affecting from 10% to over 50% of population subgroups according to some studies.

➡️ The reduction mainly due to the success of the national campaign to provide a high-dose vitamin A capsule twice a year to children under 5 years
RATIONAL 2: PALM OIL IS AMONG BEST CARRIER OF VITAMIN A, WIDELY CONSUMED BY INDONESIAN

- Consumed by almost hundred percent of households based on national socio-economic surveys
- KFI and MI study: average cooking oil intake 23.5 g/day; 20.5 g/day among women, and among U-5 children 17.3 g/day
- Little variation among economic strata
Continuous supply of palm oil as Indonesia is the largest palm oil producer in the world. CPO production in 2012 was approximately 24 millions Tons, 18 millions tons are exported.

**2006 World Palm Oil Production**

- Indonesia: 44% (15908 Tons)
- Malaysia: 43% (15861 Tons)
- Others: 7% (2718 Tons)
- Colombia: 2% (815 Tons)
- Nigeria: 2% (815 Tons)

Source: FAO 2010.
KFI and MI Study, 2004/05
- Number of Refinery +/- 30
- More than 70 percent of palm oil are unbranded, unpacked ➔ only mandatory fortification will be effective
- Turnover of unbranded palm oil less than 1 month
OUTLINE

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STEPS TOWARD MANDATORY PALM OIL FORTIFICATION

1. **2002-2008**
   - Workshops, Country Investment Plan
   - Feasibility Studies

2. **2008-2009**
   - Pilot Project at Makassar (Small Trial)
   - Effectiveness Study

3. **2009-2010**
   - Advocacy and Establishment of PPP
   - National Strategy (National Food and Nutrition Action Plan) includes Vitamin A Fortification

4. **2010-2014**
   - Scaling Up
   - Further Effectiveness and Stability Study
   - Issuance of National Standard (SNI)
   - Notification to WTO for Mandatory Palm Oil Fortification

5. **> 2014**
   - Mandated SNI & Packaging of Unbranded Palm Oil

10 October 2013
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How to bring Public-Private Dialogue and Investment to:

- Integrate public health activities with business models for efficiency and sustainability
- Integrate business models with health objectives for increased impact on micronutrient deficiencies
Challenges:

INDUSTRY QUESTIONS:

- Is it necessary?
- Is there any academic evidences of the efficacy?
- What cost and who pay the cost?
- What is (are) the risk(s) and who will pay?
- What is the implication of uncompliance?
- What is the sustainability of investment?
- Etc..etc
Challanges:

CONSUMER QUESTIONS:
• What are the health benefits?
• What cost and who pay the cost?
• Is it safe? (short and long term)?
• Will it reduce the quality of oil and food?
• Will it change the buying, storage, and handling?
• Etc
Step 1: “Create stakeholder awareness”

- Conduct series of workshops, seminar, dialogues since 2002 (KFI, MoH, MoI, etc)
- Develop a Country Investment Plan (CIP) in 2003 (CFNS IPB, MoF, etc)
- Feasibility Studies (KFI, MI, IPB, Health Politechnique Jakarta + 5 provinces)
Step 2: “PILOT PHASE: collecting evidences through field trial”

- Funded by ADB-JFPR Project
- Managed by KFI-MoH, involving Universities, Local Government officials and Oil Distributor
- Almost 2 years spent to find industry partner ("CV TERONG")
- Distributed exclusively at Barranglombo Island for research purposes, and for other consumer at Makassar City.
Step 2: “PILOT PHASE: collecting evidences through field trial”

- Activities
  - Advocacy
  - Development of Small Scale Vitamin A Fortification (SSF) of Palm Oil (production capacity 8 tons per day)
  - Homogeneity & Stability in Production and Distribution
  - Vitamin A Retention in Oil and Food
  - Consumer Acceptance & Willingnes to pay
  - Expert Product Panels
  - Nutrition & Biological Impact
KEY FINDINGS DURING DISTRIBUTION

- Vitamin A stable during distribution
- Stable during frying (retention of Vit A ranged from 54% after 3rd frying up to 94% at 1st frying)
- Consumer acceptance confirmed
- Willingnes to buy at additional cost of max Rp100,-
- Makassar Study; Biological impact confirmed
  Mean of retinol serum rises from 23.3 µg/dl to 26.6 µg/dl (3.3 µg/dl) and Prevalence of VAD decreases 8.6 % points or 32%.
Step 3: “Advocacy: Put Oil fortification at National Policy”

- Conduct series of advocacy to government and industries
- Establishment of Working Group (by Ministry of National Planning) to assist the Govt’ to control VAD (Consisted of Govt Official, NGO: KFI, etc)
- Control VAD through oil fortification included at National Food and Nutrition Plan Action 2011-2015
Step 4: “SCALING UP: FIND THE CHAMPION INDUSTRY AND ESTABLISH SNI”

- Funds supported by GAIN (through KFI) and GoI (MoH, MoI, Bappenas for research and meetings)
- Stakeholders involve:
  - Government:
    - Ministry of National Planning/Bappenas, MoH, MoI, MoT, BPOM
  - Industry:
    - Wilmar, MSM (since 2010-), Asian Agro (2013-)
    - Wings (2013-)
  - Research Center:
    - SEAFAST, Research and Development Bureau MoH
Step 4: “SCALING UP: FIND THE CHAMPION INDUSTRY AND ESTABLISH SNI”

ACTIVITIES:

• STRENGTHENING SOCIAL MARKETING AND ADVOCACY

• SUPPORTING PRODUCTION AT INDUSTRY AND DISTRIBUTION
  (target: 2.3 million unbranded palm oil fortified and consumed by 125 million of people)

• FURTHER EFFECTIVENESS AND STABILITY STUDY

• STRENGTHENING MONITORING AND EVALUATION (QA/QC)

• LEGISLATION: ESTABLISHING NATIONAL STANDARD (SNI)
Step 4: “SCALING UP: FIND THE CHAMPION INDUSTRY AND ESTABLISH SNI”

PROGRESS:

- Series of advocacy through TV dialogues, workshops have been done
- 5 big industries involve in production (multiplier effect: 4 branded oil is fortified at present)
- SNI 7709-2012 issued by BSN Mandatory SNI is expected to be launched at the end of 2013/early 2014
- Results of effectiveness and stability studies expected to publish at the end of 2013
- QA/QC system is being developed, the QC team (BPOM and industry) have been trained
Production of Fortified Palm Oil

Unbranded oil

Branded oil
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Key Success Factors of Food Fortification Program (based on wheat flour, salt and Palm Oil fortification experiences)

- Political will from all stakeholders (government, industry, academics, civil society)
- Assistance in the beginning phase
- Strong research/academic evidences
- Sufficient regulations to support mandatory fortification
- Economic feasibility and the benefit for industry
- Continuous support from government, donors and health related NGO’s to maintain the programme
The Experience of ADB/JFPR PROJECT the Enriching Lives of the Urban Poor Project (Oil Fortification in Makasar-Indonesia, Lochman, 2010)

- Extensive advocacy for decision makers and the private sector
- Industry needs to be engaged at early stage
- Need scientific evidence what works at what cost
Strong Public-Private Alliances for Fortification In Indonesia is necessary

Private, Donors & NGO Partners
ADB  : Pilot project JFPR capacity building
GAIN  : Scaling Up activities
KFI  : advocacy, training and effectiveness trial
Cooking oil company:
   production of fortified oil marketing and distribution
SAFO-GIZ: technical support capacity building
Vit A Company:
   Supply vit A

Public Partners
- Bappenas: coordination
- Ministry of Health:
  Implementation and impact evaluation
National Food and Drug Administration/BPOM: QC
Center for Food and Nutrition Research: Stability study, Monitoring
Ministry of Industry: National Standards devt, capacity building
Ministry of Trade: packaging regulation

10 October 2013 Draft Martianto
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## CHALLENGES TO MANDATORY PALM OIL FORTIFICATION

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<th>Strengths</th>
<th>Weaknesses</th>
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<td>1. Uniform product</td>
<td>1. Difficult to develop the capacity of quality control of production in 35 FACTORIES</td>
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<td>2. Easy to coordinate with capsule distribution program, and can reprogram vitamin A capsule distribution support</td>
<td>2. Lack of awareness in nutrition community in the absence of nutritional blindness.</td>
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<td>3. Easy to set up sustainable and effective monitoring program</td>
<td>3. Lack of community demand which may lead to weak political support for sustain production</td>
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<td>4. Bottom of pyramid will benefit from program, and employment for cooking oil fortification will generate employment.</td>
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<td>5. Less social marketing activities needed</td>
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## Opportunities

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<th>Threats</th>
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<td>1. Potential for developing learning why, how, and monitoring of fortified cooking oil</td>
<td>1. Opposition of some oil producers to additional cost of assessment due to implementation of mandated SNI (National standard) and readiness of QC system</td>
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<td>2. Potential for operations research</td>
<td>2. Retinol Palmititate is imported and will consume millions dollars a year, while locally abundant of beta carotene is available.</td>
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<td>3. Nutrition issues, including VAD are in the agenda/ prioritized (government and legislators)</td>
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What Next?

- Continuing advocacy for the Implementation of Mandatory fortification (expected to be launched at end 2013/early 2014, full implementation at 2015)

- Implementation of Mandatory Packaging for unbranded cooking oil (2015)
THANK YOU