

Sustainable Agricultural Mechanization Strategies (SAMS) in the Asia-Pacific Region

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Overview

- Regional context, need for a focus on sustainable agricultural mechanization (SAM) and role of SAM
- Desired benefits and impacts of SAM
- Sustainable agriculture mechanization strategy (SAMS) - definition, goal, enabling factors
- SAMS strategic pillars
- Where we are today
- The future



Challenges to the Food Supply and Environment in Asia and the Pacific Region

- Population growth coupled with rising living standards.
- Increasing urbanization, a declining rural labour force and increasing feminization of agriculture.
- Ageing farming population.
- Growing scarcity of fresh water resources.
- Resource degradation and loss of biodiversity.
- Increasing energy costs and declining farm incomes.
- Climate change.
- High levels of post-harvest losses.

What this means

- There is a need to:
 - Meet growing food demands
 - Respond to impacts of demographic change in rural areas
 - Use natural resources in a more sustainable way
 - Increase energy efficiency
 - Innovate to enhance resilience
 - Implement post-harvest loss reduction strategies

Sustainable agricultural mechanization (SAM) can play a role in addressing all of the above

What the challenges also highlight

- The need to focus on the development of sustainable agricultural production systems
 - Systems that maintain optimal production without jeopardizing production factors

SAM can contribute to sustainable agricultural production

How SAM contributes to environmental sustainability

- By increasing energy efficiency
- Reducing carbon and gas emissions
- Through application with practices that avoid accelerating erosion and soil degradation
 - Conservation and low tillage agriculture
- Through including measures to conserve soil fertility
 - Efficient and appropriate use of pesticides and fertilizers



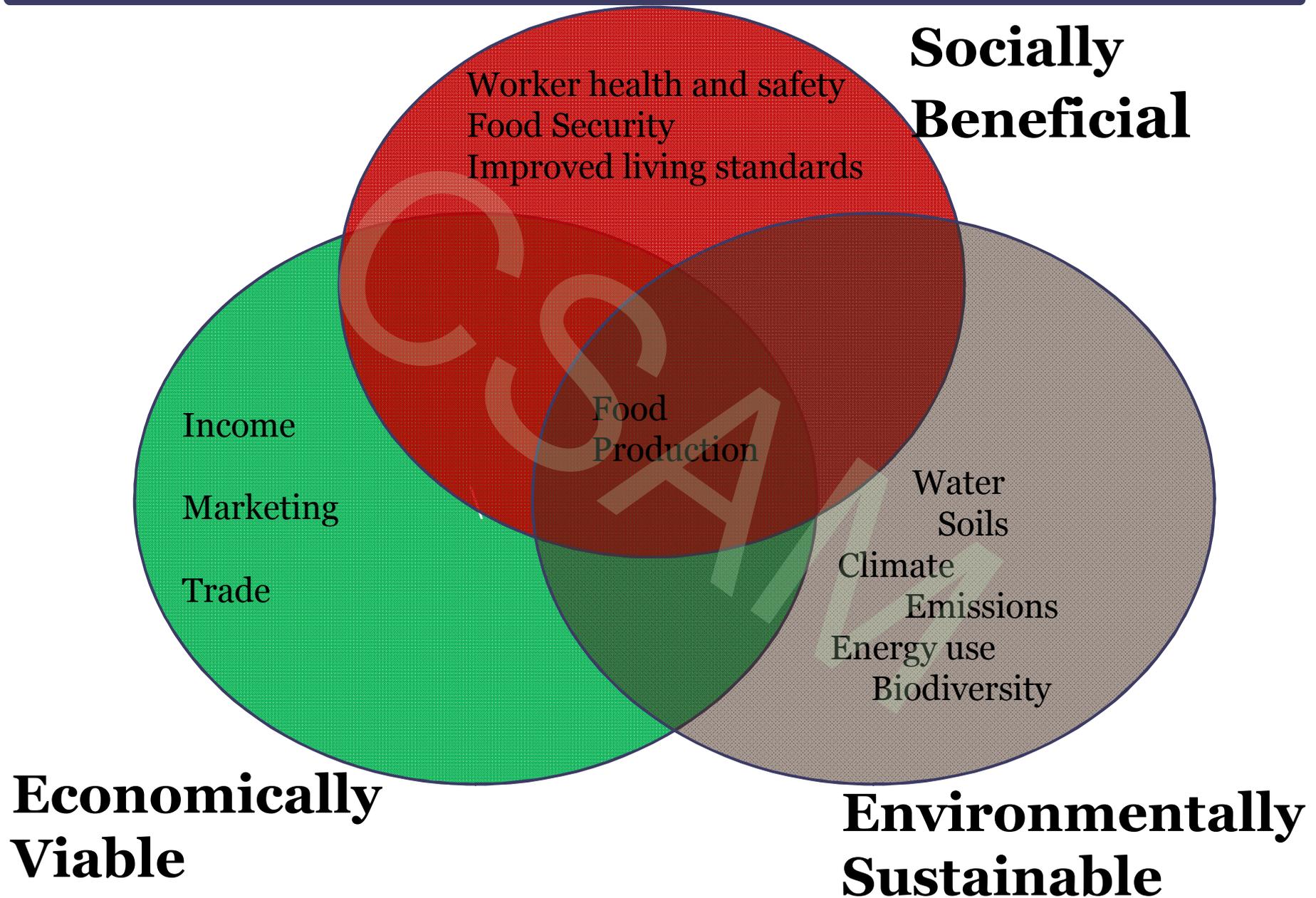
Sustainable Benefits of SAM

- Can enhance financial performance of farms/producers
 - Increase trade and market opportunities

- Contribution to social benefit
 - Improving food security,
 - Reducing the drudgery associated agricultural work
 - Worker health and safety



Desired Benefits and Impacts of SAM

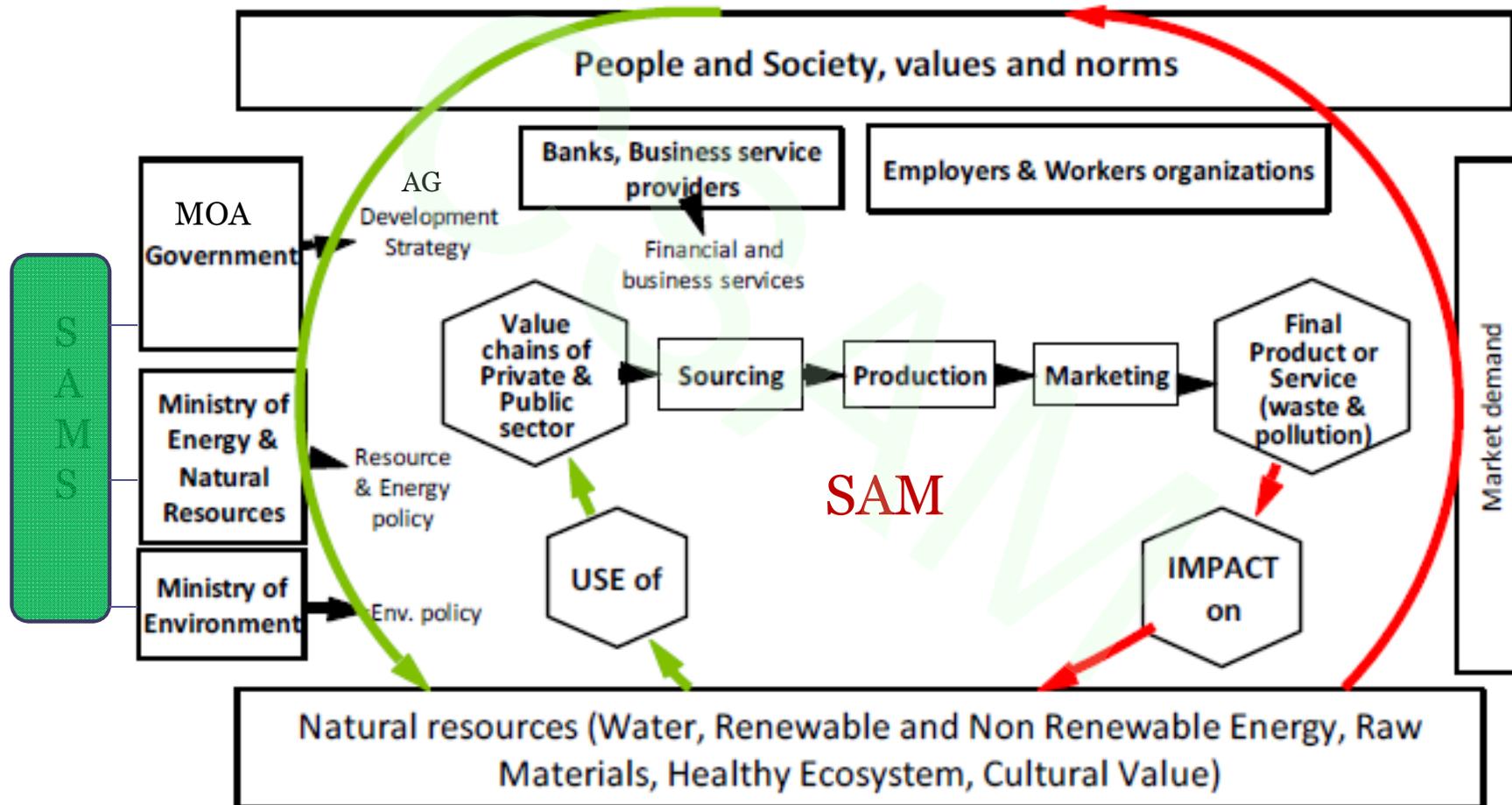


Sustainable Agricultural Mechanization Strategy (SAMS)

- SAMS is a planning strategy that contributes to agricultural sustainability, while meeting food self sufficiency, generating economic development and inclusive growth as well as social benefit.
- SAMS is part of the enabling environment for the development of sustainable production systems and for the effective use of SAM.
 - It can serve as a foundation to create a policy, institutional and market environment, that gives farmers the choice of farm power suited to their needs, while creating linkages among stakeholders.

SAMS is a joint initiative of CSAM and FAO, launched in December 2011

SAMS Constitutes an Element of the Enabling Environment to Promote Sustainability



Source – Adapted from Donor Committee on Enterprise Development , 2012



Goal of SAMS for Asia and the Pacific Region

To address food security, poverty alleviation and environmental sustainability through sustainable intensification of agriculture, by creating an enabling environment.

CSAM-FAO Workshop, Bangkok 2011

Enablers for SAMS Formulation

- Relative importance of agriculture in the national economy.
- Access to/availability of communication infrastructure.
- Sufficient political commitment and will.
- Adequate financial and human resources.
- Recognition of the need for change by stakeholders – farmers, public and private sector, NGOs, financial institutions

Source: CSAM-FAO Workshop 2011



Other Enablers for SAMS Formulation

- Competitive marketing and agricultural support services.
- Systems and/or infrastructure for soil and water conservation.
- Efficient agricultural, energy and environmental policies
- Information networks and training systems
- Public and/or private sector applied research systems adapted to local conditions

SAMS Strategic Pillars for Asia and the Pacific

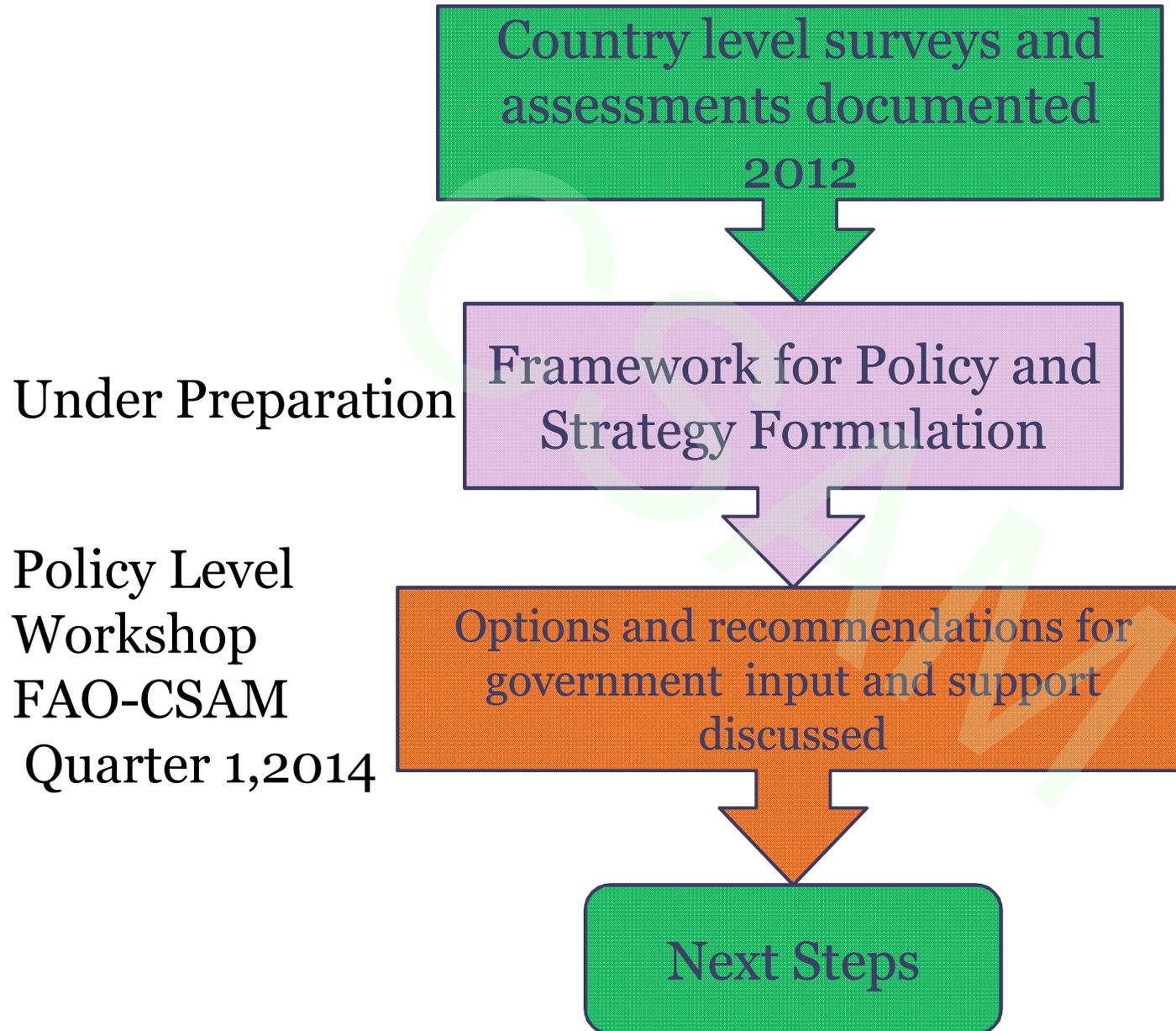
- Pillar 1 - Surveys, assessments and analyses of the current status of agricultural mechanization
- Pillar 2 - Enabling policies and institutions for SAMS development
- Pillar 3 - Human capacity development
- Pillar 4 - Financial support to enhance investment in SAMS.
- Pillar 5 – Advocacy (and awareness raising) on SAMS
- South-South and North-South Collaboration

Table 1 Priorities of Countries with regard to SAMS

Countries	Priorities
Philippines	Comprehensive National Program for SAMS
Sri Lanka	Standardization of Agricultural machinery standards for SAMS
Malaysia	Providing access to appropriate equipment to farmers
India	Optimize capitalization of agricultural machinery use; Develop and promote agricultural machinery that is resource and energy efficient and conserve natural resources.
Indonesia	Increasing the availability of agricultural mechanization technology to farmer / stakeholders
Bangladesh	Strengthened capacity of agricultural mechanization technology on the supply side of AMT
Nepal	SAMS
Vietnam	Applying appropriate machinery and equipment for agricultural production
Mongolia	Improve planning and implementation coordination of Government agricultural mechanization (SAMS)
Thailand	Promote standardization of local agricultural mechanization
Myanmar	Training and education for farmers Select suitable farm machinery for different types of soil

CSAM-FAO Workshop 2011

Where are we now?



A large, faint watermark of the Fiat logo is centered in the background. It features a circular emblem with a central five-pointed star and the words "FIAT" and "PARIS" around the bottom edge.

Thank you