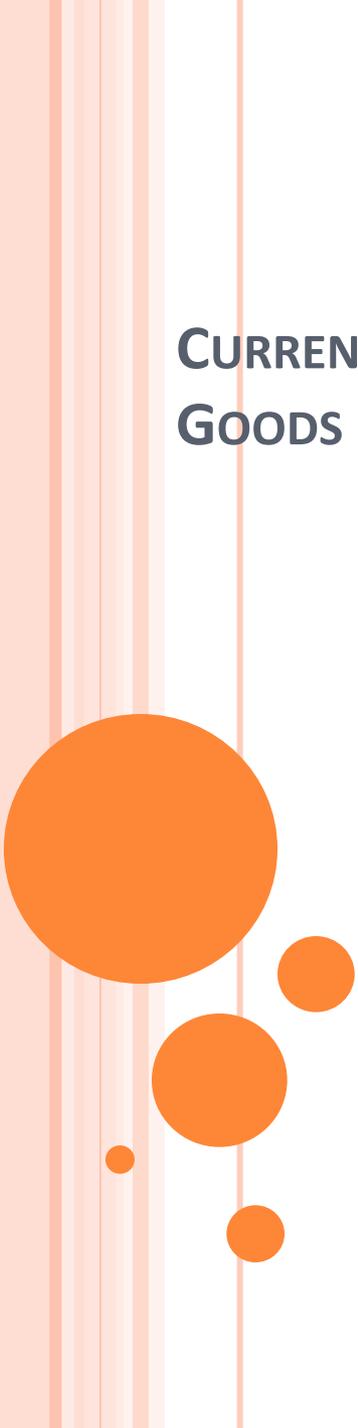


# **CURRENT POLICIES AND DISCUSSIONS ON AGRICULTURE AND PUBLIC GOODS**



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# OUTLINE

- ❑ The policy discussions on agricultural externalities with public goods characteristics in the last decade
  - Multifunctionality of agriculture: Positive externalities and relevant policies
  - Agri-environmental policies: Changing the level of externalities
- ❑ Key policy questions
  - Multifunctionality of agriculture
  - Agri-environmental policies



# THE POLICY DISCUSSIONS ON AGRICULTURAL EXTERNALITIES IN THE LAST DECADE - MULTIFUNCTIONALITY OF AGRICULTURE: POSITIVE EXTERNALITIES AND RELEVANT POLICIES

- ❑ 1998 OECD Agricultural Ministerial Meeting stated that “These shared goals confirm that the common objectives are for the sector:
    - to be responsive to market signals,
    - to be efficient, sustainable, viable and innovative so as to provide opportunities to improve standards of living for producers,
    - to be further integrated into the multilateral trading system,
    - to provide consumers with access to adequate and reliable supplies of food which meets their concerns, in particular with regard to safety and quality,
    - to contribute to the sustainable management of natural resources and the quality of the environment,
    - to contribute to the socio-economic development of rural areas including the generation of employment opportunities through its multifunctional characteristics, the policies for which must be transparent, and
    - to contribute to food security at the national and global levels.
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# THE POLICY DISCUSSIONS ON AGRICULTURAL EXTERNALITIES IN THE LAST DECADE - MULTIFUNCTIONALITY OF AGRICULTURE: POSITIVE EXTERNALITIES AND AGRICULTURAL SUPPORT

- 1999-2003 OECD's work on multifunctionality
- After these, some relevant issues were also discussed

Multifunctionality: Towards an Analytical Framework (2001)

Multifunctionality: The Policy Implications (2003)

Farm Structure and Farm Characteristics – Links to Non-Commodity Outputs and Externalities (2004)

Multifunctionality in Agriculture: What Role for Private Initiatives? (2005)

Financing Agricultural Policies with Particular Reference to Public Good

Provision and Multifunctionality: Which Level of Government? (2005)

The Implementation Costs of Agricultural Policies (2007)

Multifunctionality in Agriculture: Evaluating the Degree of Jointness, Policy Implications (2008)



# THE POLICY DISCUSSIONS ON AGRICULTURAL EXTERNALITIES IN THE LAST DECADE - MULTIFUNCTIONALITY OF AGRICULTURE: POSITIVE EXTERNALITIES AND AGRICULTURAL SUPPORT

- ❑ The context in which multifunctionality was discussed was related to the question as to whether the existence of multifunctionality could justify agricultural policy intervention.
- ❑ The OECD's policy discussion defined three questions so as to guide policy makers to achieve the best policy maximizing the economic welfare. If the answers to these three questions are "Yes", policy intervention could be justified.
  - Jointness
  - Comparison between welfare increases due to trade and welfare losses due to declines of non-commodity outputs
  - Possibilities of creating markets for non-commodity outputs



## The policy discussions on agricultural externalities in the last decade - Agri-environmental policies: Changing the level of externalities

- There have also been a large number of researches as well as policy developments related to changing the level of externalities associated with agricultural production.
- These policies are often called as “agri-environmental policies”, which have become one of the most important agricultural policies in many OECD countries.
- Can we draw a clear line between policies addressing the issues on MF and the issues on changing the level of externalities?



## Key policy questions: MF

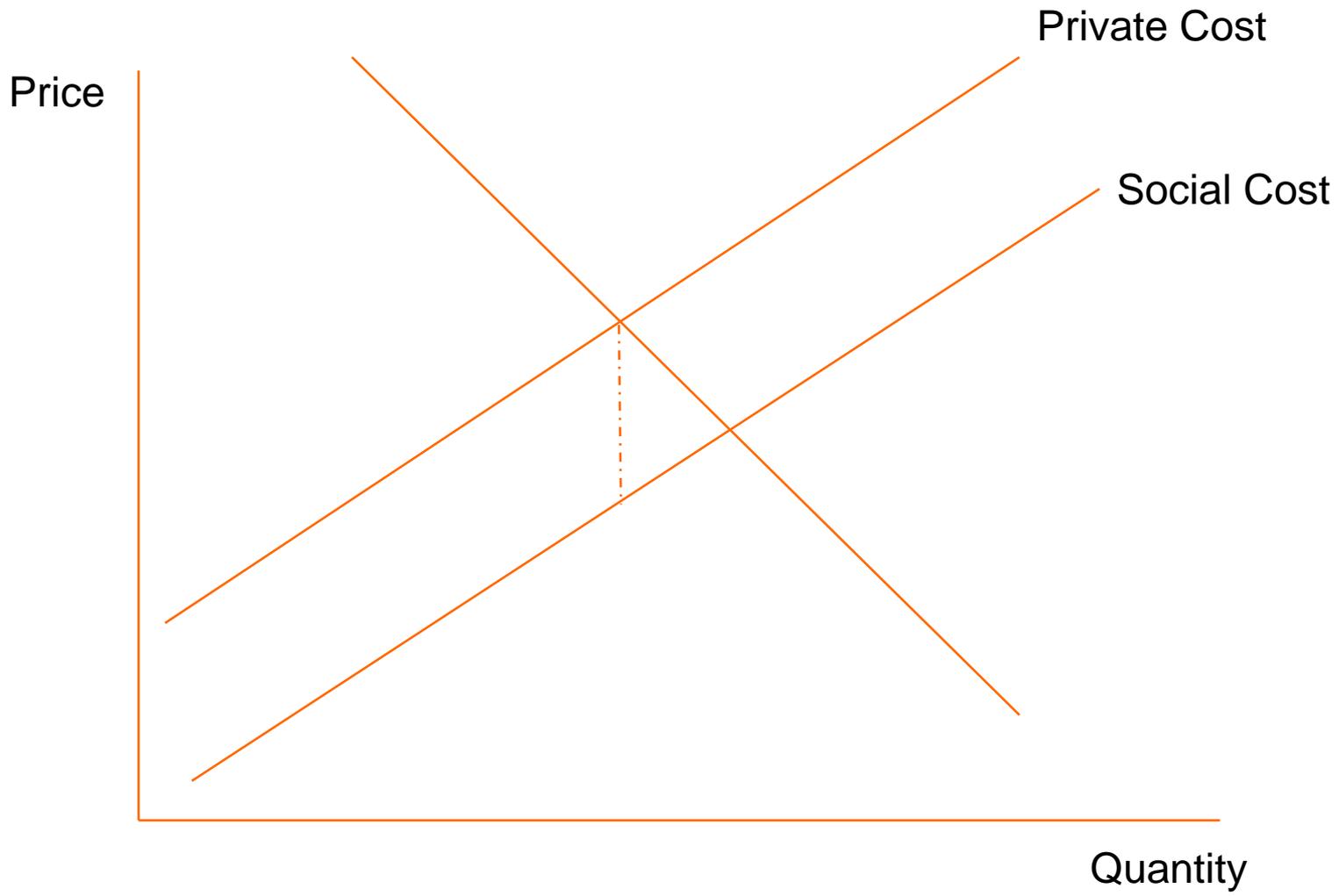
- ❑ What is the optimal provision of positive externalities with public goods characteristics?
- ❑ Determining the most efficient supplier of positive externalities by identifying the origin of externalities; spatial issues are also important
- ❑ Determining whether marginal values of externalities could be equated with marginal costs
- ❑ Determining who should bear the costs



## Key policy questions: MF

- What is the optimal provision of positive externalities?
- In principle, optimal provision of positive externalities should be defined as the situation where the overall economic welfare including both commodity production and externalities (non-commodity outputs) is maximized.





# Key policy questions: MF

- ❑ Determining the most efficient supplier of positive externalities by identifying the origin of externalities
- A question to be raised here is whether commodity production is really the best supplier of externalities.
- If there is strong jointness between commodity and externalities, the answer would be yes.
- However, if the jointness is weak, externalities could be provided separately from commodity production, in which the most efficient supplier may not be the commodity producers.
- Jointness is therefore one of the most important policy concepts.



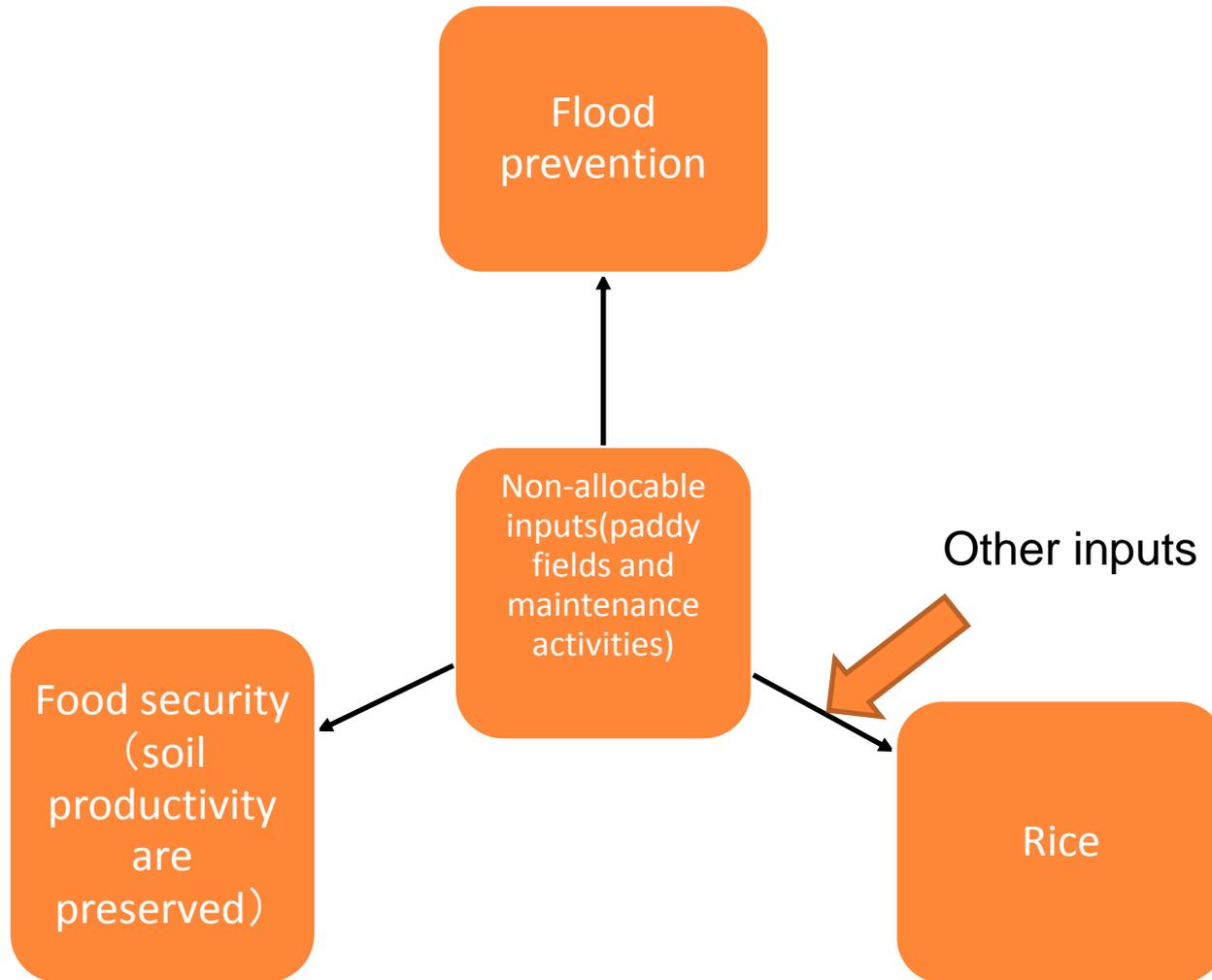
## Key policy questions: MF

- How could we analyze the degree of Jointness
- In practice, when the following formula exists, it is defined that there is strong jointness, which means that there is economy of scope.

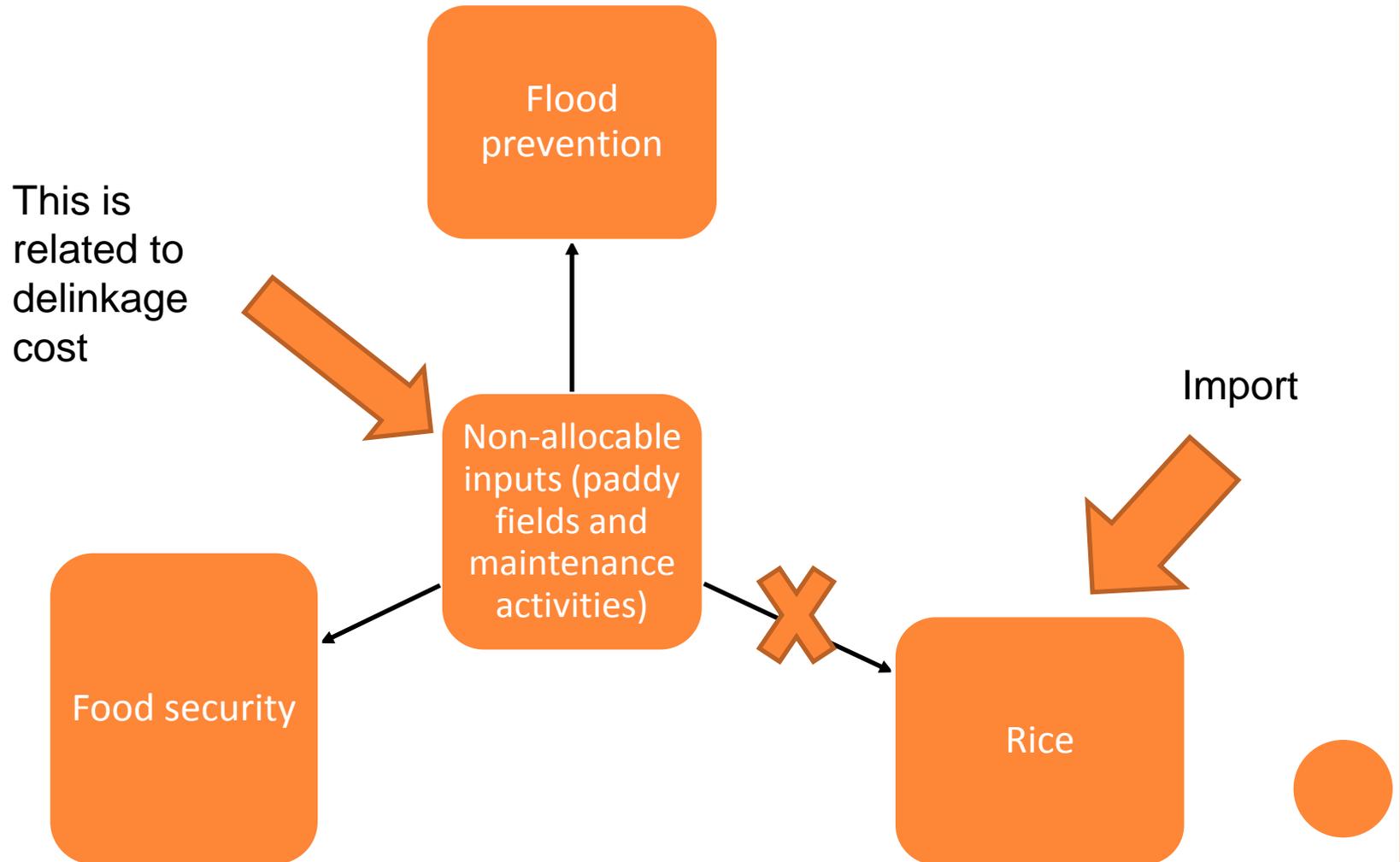
The cost of separate joint provision of commodity and non-commodity outputs  $>$  The cost of joint provision, which is (The cost of delinked provision of non-commodity output + the cost of importing the relevant commodity output)  $>$  The domestic production cost of the commodity output

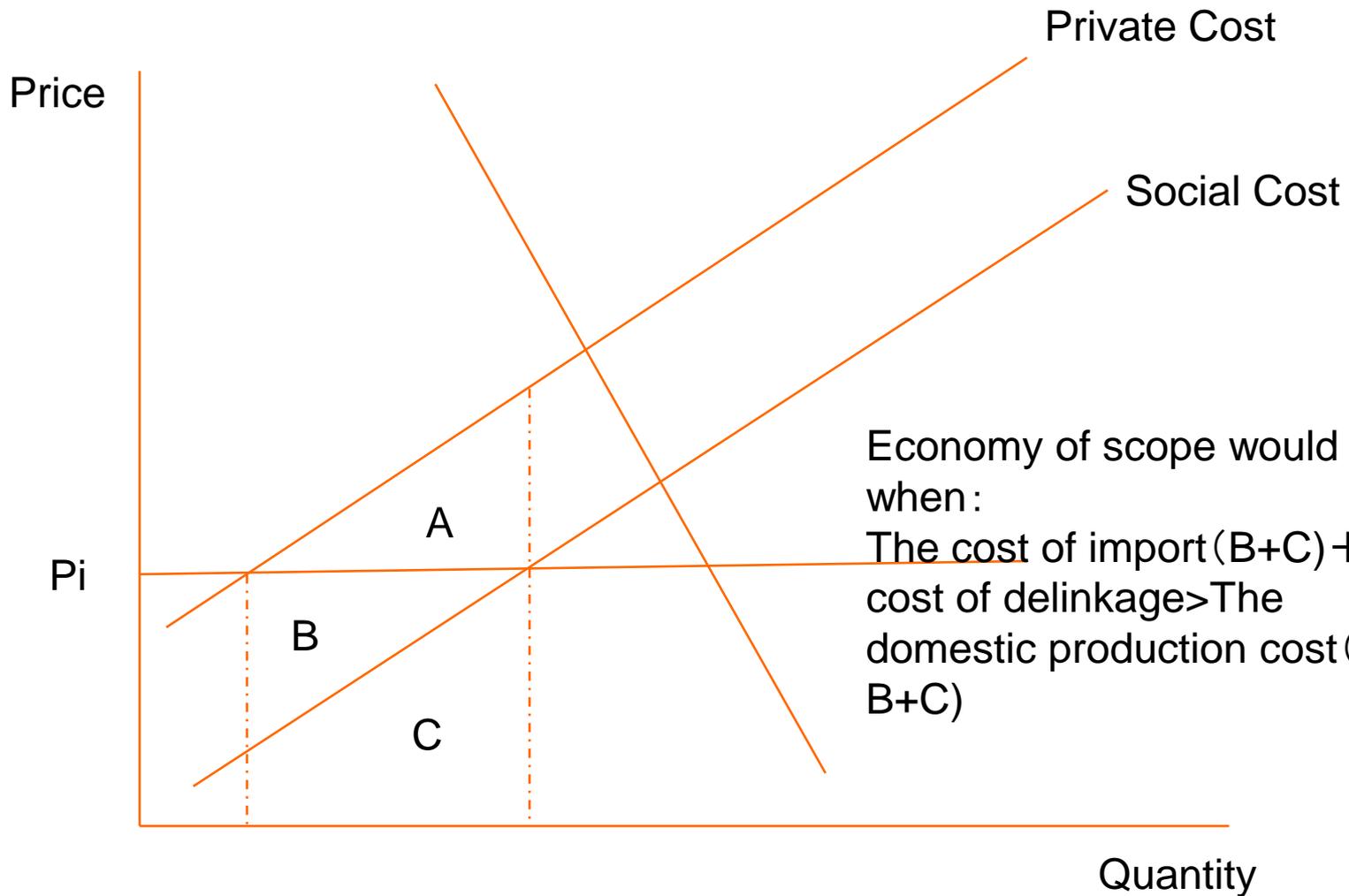


# THE POLICY IMPLICATIONS OF JOINTNESS



# THE POLICY IMPLICATIONS OF JOINTNESS: DELINKING NON-COMMODITY PROVISION FROM COMMODITY PRODUCTION





Economy of scope would hold when:  
 The cost of import ( $B+C$ ) + the cost of delinkage  $>$  The domestic production cost ( $A+B+C$ )

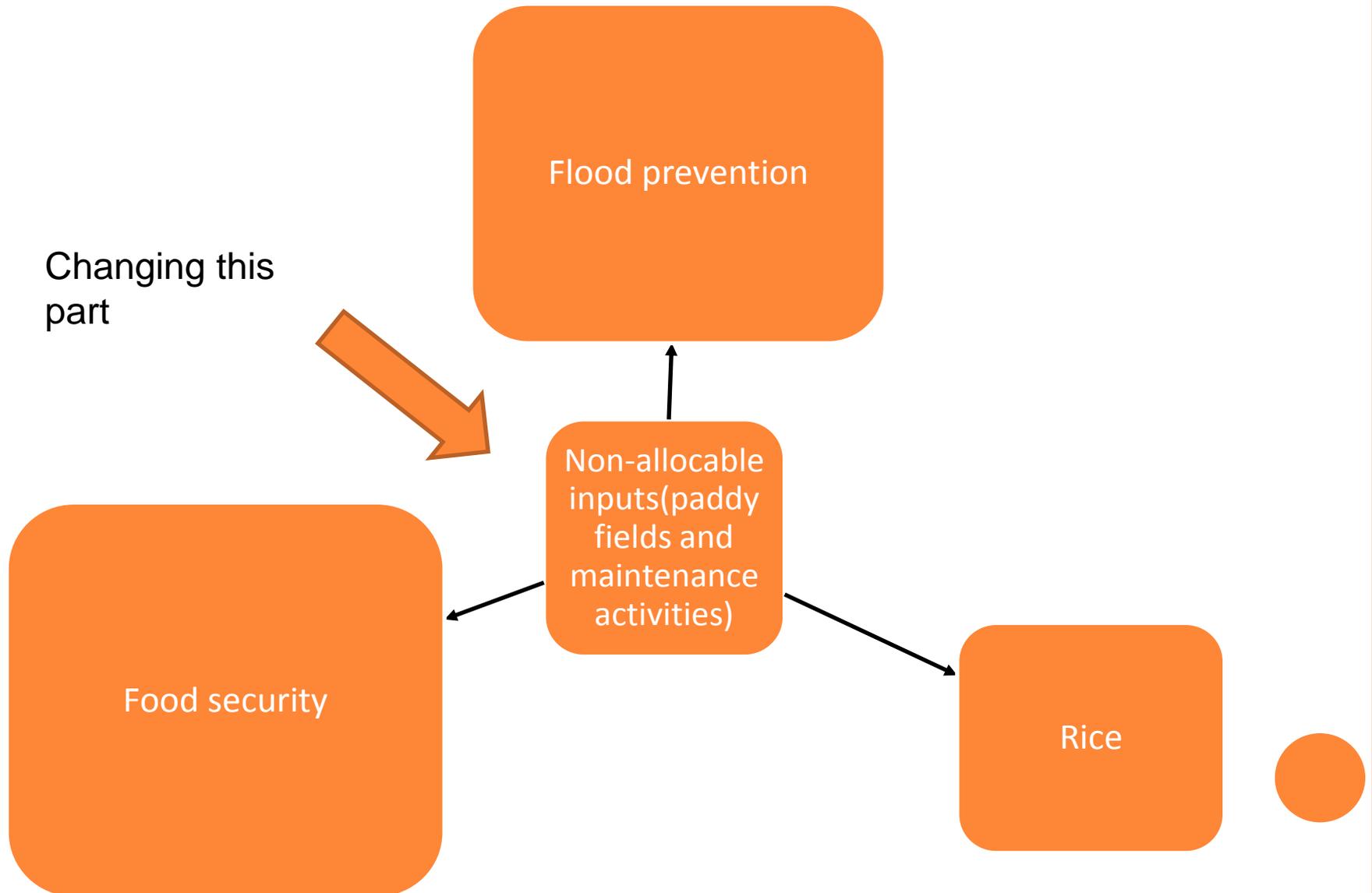


## Key policy questions: MF

- ❑ Determining the most efficient supplier of positive externalities by identifying the origin of externalities
- Identifying the origin of externalities is also useful when we try to change the way of the jointness.
- This could lead us to more sustainable balance between commodity production and provision of externalities.

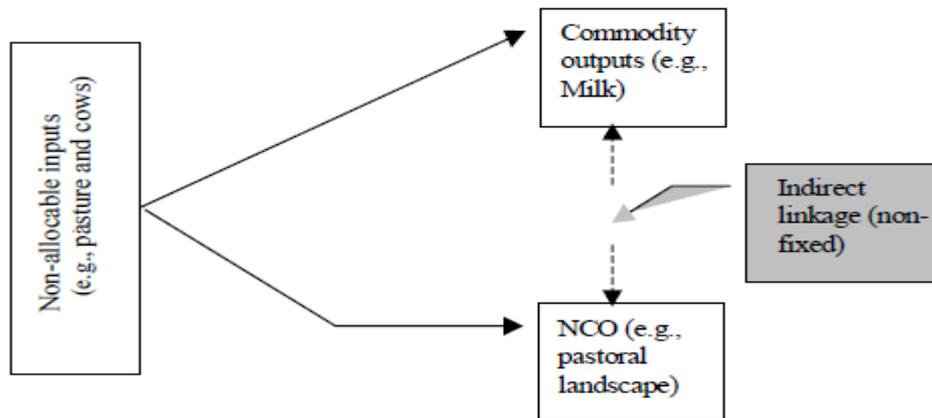


# THE POLICY IMPLICATIONS OF JOINTNESS: CHANGING THE NATURE OF JOINTNESS

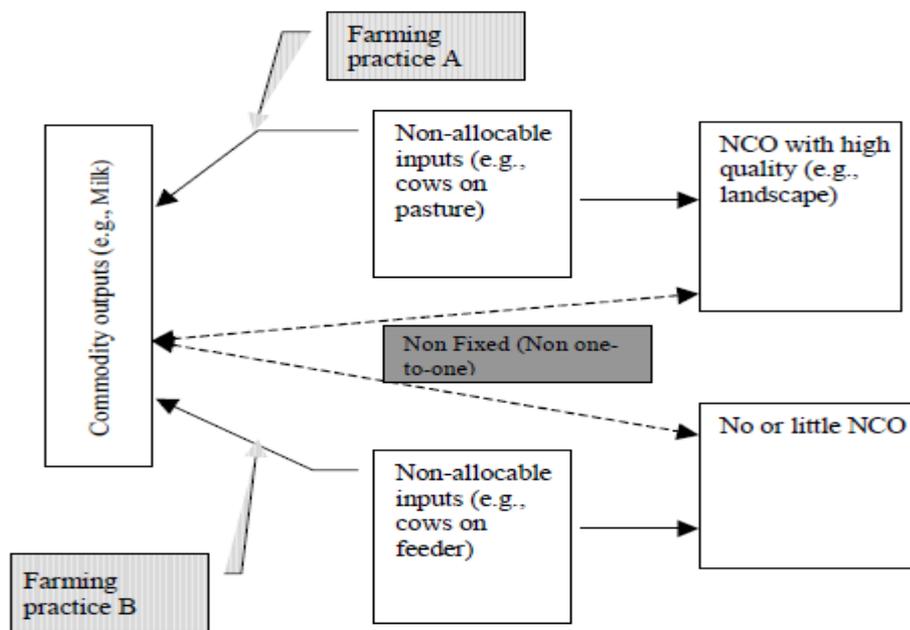


**Figure 2. Illustration of indirect linkages between NCOs and commodity production**

<Linkages with non-allocable inputs may create "indirect" linkages between NCOs and Commodity outputs



<However, indirect linkages are not "fixed" because they depend on farming practices>



## Key policy questions: MF

- ❑ Determining the most efficient supplier of positive externalities by identifying the origin of externalities
- Spatial issues are also important in viewing jointness.
- Collective actions of suppliers would be a key, for example, if transaction costs matter or economy of scale exists.



# Key policy questions: MF

- ❑ Determining whether marginal values of externalities could be equated with marginal costs
- Marginal values of positive externalities associated with marginal changes of commodity production should be obtained
- Valuing externalities with public goods characteristics is always a challenge



# Key policy questions: MF

- Determining who should bear the costs
- It depends on public goods characteristics of externalities.

*Benchmark policy options under perfect information and without transaction costs (Table 2)*

		Multiple NCO with the same public good characteristic				Multiple NCO with different public good characteristics		
		Pure Public Good	Local Public Good	Club Good (and private good)	Common Property Resources	Pure Public Good	Local Public Good	
		Others		Others (exc. PPG)				
Strong Jointness (Economies of scope)	Weak Jointness (Non-economies of scope)	De-linked payments to the providers of NCOs by central government (see Box 12 for the definition of payments)	De-linked payments to providers of NCOs by local government	Creation of single or multi-product clubs (or markets for use-values) with institutional assistance of mainly local government	Creation of rules for using NCOs	Combination of de-linked payments by central and local governments, or clubs and communities	Combination of de-linked payments by local government, and clubs or communities	
	No Market Failure	No policy required	No policy required	No policy required	No policy required	No policy required	No policy required	
	Market Failure	Wide-spread (W)	NCO-linked* and targeted or broad-based payments by central government	NCO-linked and targeted payments by local government	Creation of single or multi-product clubs (or markets for use-values) with institutional assistance of mainly local government. Clubs at national level may be created as well	Creation of rules for using NCOs	Policy mix (e.g. NCO-linked and broad-based payments supplemented by targeted payments by local government)	NCO-linked and targeted payments to be financed by local government and other relevant parties (e.g. Trusts comprising local government and other parties)
		Limited (L)	NCO-linked and targeted payments by central government				NCO-linked and targeted payments to be financed by central government and relevant parties	
	L and W	Combination of targeted and broad-based payments				Policy mix		

a. As discussed below, positive effects of agricultural employment, for example, might exceptionally justify an input-coupled payments, in this case a labour subsidy. Only when a fixed or direct linkage between the production intensity and an NCO is found, could payments coupled with commodity outputs be a policy option. Source: OECD(2001)

# Key policy questions: Agri-environmental policies

- How should incentives be given to farmers?
  - Regulatory measures (e.g., regulation and cross compliance)
  - Economic measures (e.g., taxes and agri-environmental payments)
  - Market measures (e.g., emission trading)
- Who should bear the costs?
  - Government (central or local)
  - Beneficiaries (e.g., Payments for Environmental Services)
  - Consumers (e.g., Eco-labeling or carbon foot print)
  - Farmers (if the cost cannot be transferred to consumers)

“Reference level” is the most important concept for answering these policy questions.



# Key policy questions: Agri-environmental policies

- How should spatial coordination be made?
- How should we encourage collective actions when they are needed?
- E.g., Collective contracts, payments to collective actions, payments for organizing costs

