

- Matrix
- Column
- Row
- Scalar

		17						14									
		Factor (F)						Institutions (i)									
	#	Label	1	2	3	4	5	6	7	8	9	10	11	12	11a	11b	
Dimension	#		24	24	16	1	10	1	1	1	1	1	1	1	24	1	
ACCOUNT	81	Label	Co	A	FL	FK	iH	iCr	iG	iTx	iSu	Cc	wCu	TC	mCo	wTr	
Commodity	1	24	Co	(Co A)			(Co iH)		(Co iG)			(Co Cc)	(Co wCu)	(Co TC)	(Co mCo)	0	
Activity	2	24	A	(A Co)							(A iSu)			(A TC)	0	0	
Factor Labor	3	16	FL											(FL TC)	0	(FL wTr)	
Factor Capital	4	1	FK											(Fk TC)	0	(Fk wTr)	
Household	5	10	iH		(iH FL)	(iH FK)	(iH iH)	(iH iCr)	(iH iG)				(iH wCu)	(iH TC)	0	(iH wTr)	
Corporate	6	1	iCr			(iCr FL)	(iCr iH)	(iCr iCr)	(iCr iG)				(iCr wCu)	(iCr TC)	0	(iCr wTr)	
Government	7	1	iG	0	0	0	0	(iG iH)	(iG iCr)	(iG iG)	(iG iTx)	0	0	(iG wCu)	0	(iG wTr)	
Tax	8	1	iTx	(iTx Co)	0	0	0	0	0	0	0	0	0	(iTx wCu)	(iTx TC)	(iTx wTr)	0
Subsidy	9	1	iSu	0	0	0	0	0	0	(iSu iG)	0	0	0	(iSu TC)	0	0	
Capital A/C	10	1	Cc											(cC TC)	0	(cC wTr)	
World Consolidated Current A/C	11	1	wCu		(wCu A)	(wCu FL)	(wCu FK)	(wCu iH)	(wCu iCr)	(wCu iG)	(wCu iTx)	(wCu iSu)	(wCu Cc)	(wCu TC)	(deleted)	0	
Total Row/Col	12	1	TR	(TR Co)	(TRA)	(TR FL)	(TR FK)	(TR iH)	(TR iCr)	(TR iG)	(TR iSu)	(TR Cc)	(TR wCu)		(TR mCo)	(TR wTr)	
Balance	1	Bal	(TC-TR) Co	(TC-TR) A	(TC-TR) FL	(TC-TR) FK	(TC-TR) iH	(TC-TR) iCr	(TC-TR) iG	(TC-TR) iTx	(TC-TR) iSu	(TC-TR) Cc	(TC-TR) wCu				
Import	11a	24	mCo		(mCo A)		(mCo iH)		(mCo iG)		(mCo iSu)			(mCo TC)			
World Transfer	11b	1	wTr	0	0	(wTr FL)	(wTr FK)	(wTr iH)	(wTr iCr)	(wTr iG)	0	0	0	(wTr TC)			

# DySAM and Green Jobs

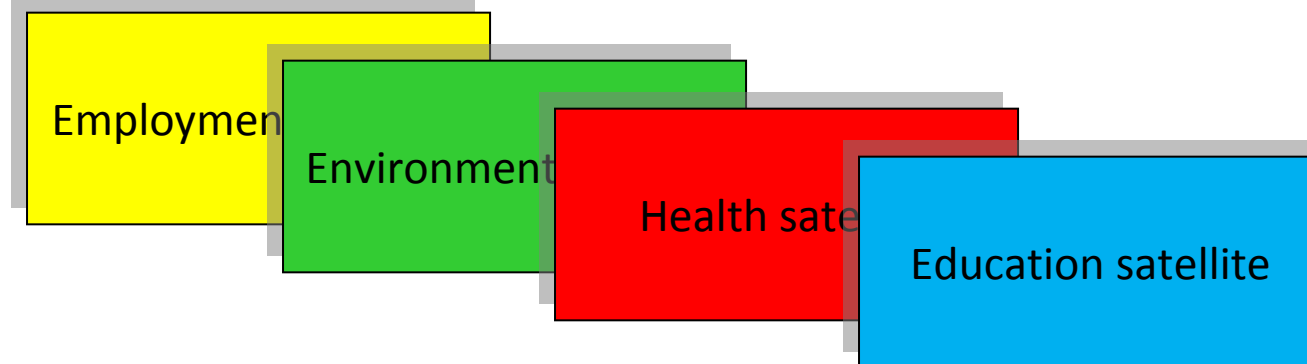
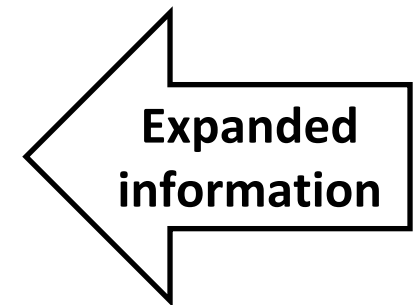
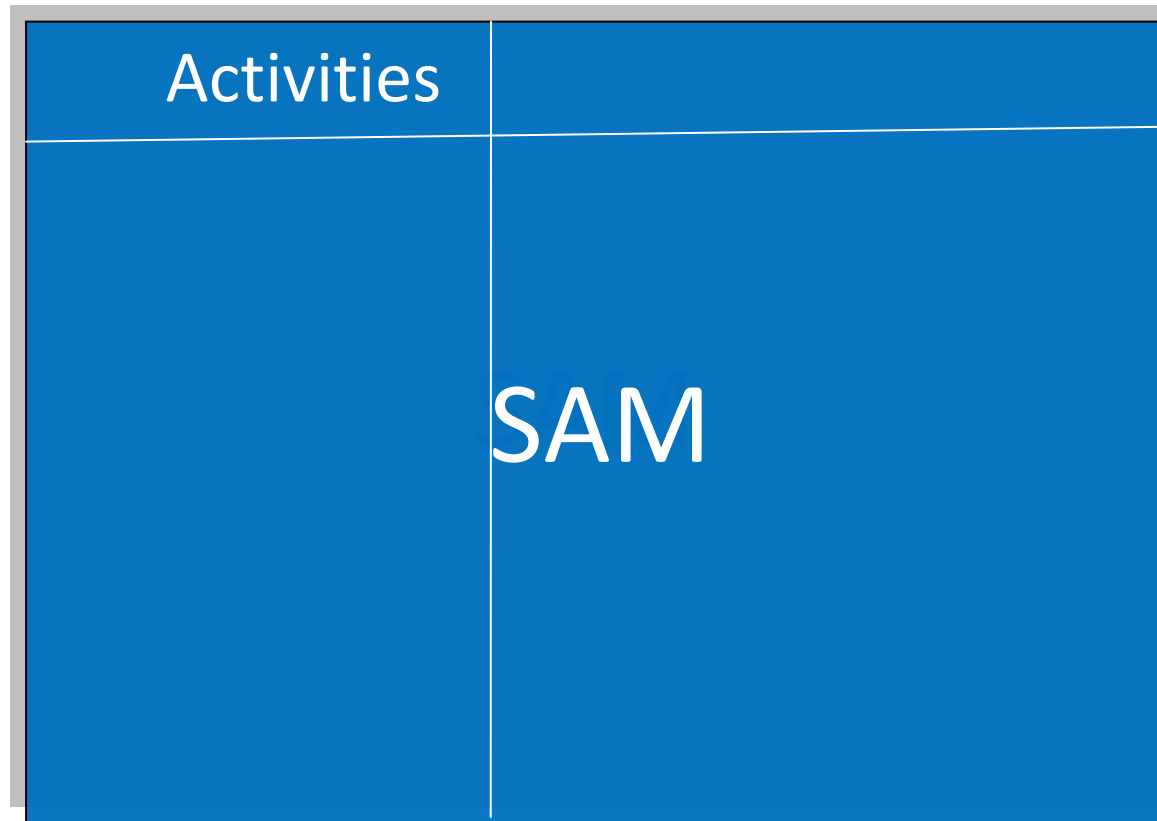
The Coordinating Ministry for Economic Affairs

Statistics Indonesia

International Labour Organization

Consolidated #  
11 = 11a + 11b

# Extending and expanding the DySAM



# Background

In 2009 a **Fiscal Stimulus Package** was formulated to respond to the Global financial Crisis. The package included public **infrastructure investments worth IDR 12.2 trillion**



**Enhance diagnostic and policy advisory capacities through development of a tool that could analyze the**

- a) impact of public spending on employment, target groups & poverty
- b) the cost-effectiveness of the government investments.



**Request for technical assistance from ILO**

# Social Accounting Matrix Advisory Support And Monitoring Assistance (SAMASAMA)

## ■ Key Partners:

- Coordinating Ministry for Economic Affairs
- Statistics Indonesia
- Ministry of Public Works
- Ministry of Finance
- Ministry of Manpower and Transmigration
- National Development Planning Agency
- University of Indonesia
- Gadjah Madah University

## ■ Main activities:

- Development of a Dynamic Social Accounting Matrix with an employment satellite account, technology choice and expanded information on the construction sector
- Provision of training to build the capacity of end users
- Production of case studies to illustrate the features and benefits of the DySAM

# Static / Dynamic

## Static SAM

## Dynamic SAM

Circular economic flow is static → Circular economic flow evolves over time

Linkages: static - covering one year → Linkages: dynamic – backward & forward

✓ Extending : inclusion of satellite accounts

✓ Extending : inclusion of satellite accounts

✓ Expanding: disaggregation of activities / commodities

✓ Expanding: disaggregation of activities / commodities

# DySAM?

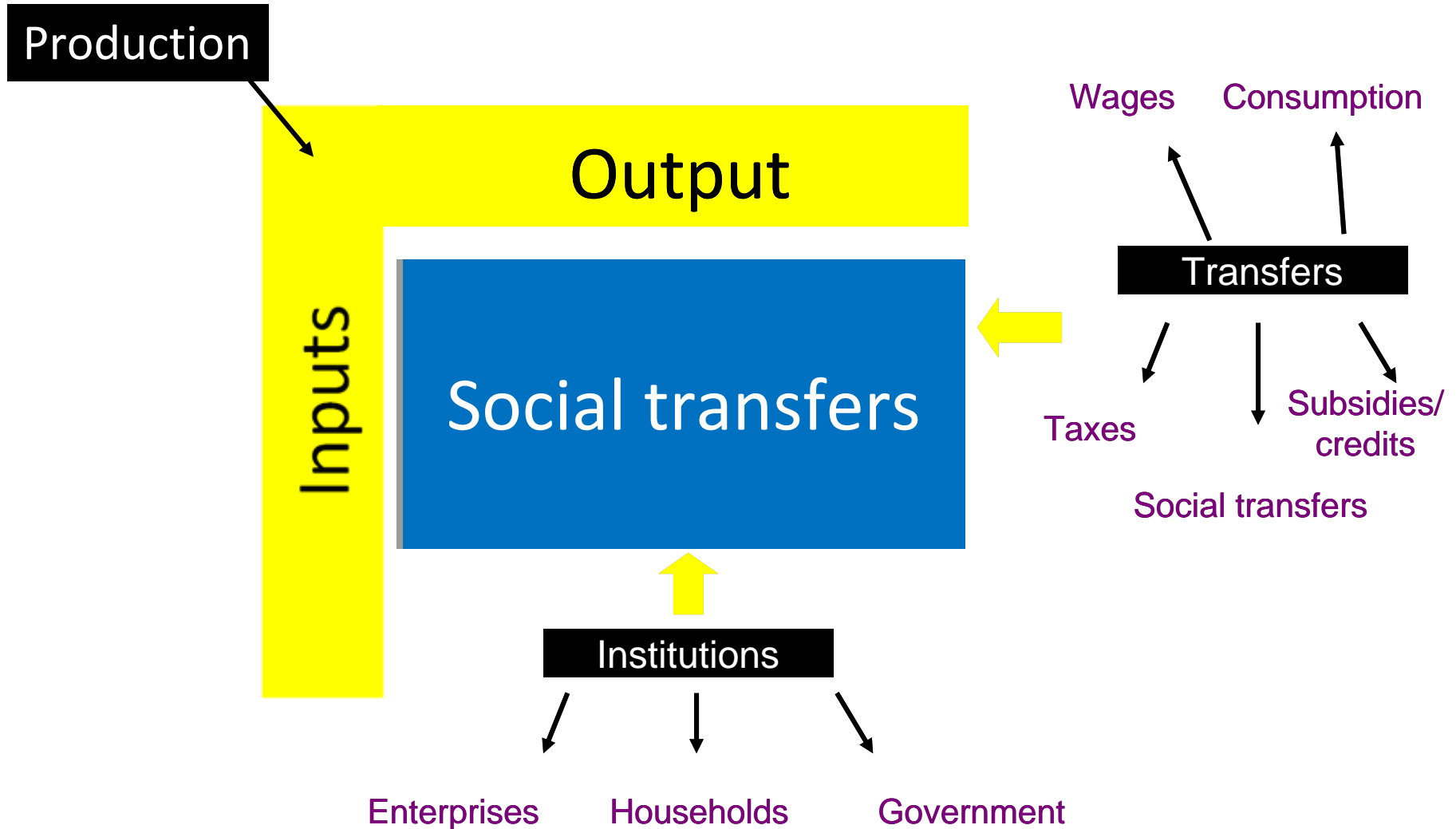
- SAM includes input/output + social transfers
- Dynamic - economic flow evolves over time
- Forward and backward linkages – added flexibility
  - the future does not have to be the same as the past
- More details on employment through an employment satellite account, which helps targeting,
- Opening up of specific sector, e.g. Infrastructure

# The Dynamic SAM (2000-2008)

Variable Map		Dynamic SAM for Indonesia 2000-2008 (Producer Prices)													12/17		
<ul style="list-style-type: none"> <li>Matrix</li> <li>Column</li> <li>Row</li> <li>Scalar</li> </ul>		17				14											
		Factor (F)				Institutions (i)											
Dimension	#	Label	1	2	3	4	5	6	7	8	9	10	11	12	11a	11b	
ACCOUNT	#	Label	Co	A	FL	FK	iH	iCr	iG	iTx	iSu	Cc	wCu	TC	mCo	wTr	
Commodity	1	24	Co	(Co A)	0	0	(Co iH)	0	(Co iG)	0	0	(Co Cc)	(Co wCu)	(Co TC)	(Co mCo)	0	
Activity	2	24	A	(A Co)	0	0	0	0	0	0	(A iSu)	0	0	(A TC)	0	0	
Factor Labor	3	16	FL	(FL A)	0	0	0	0	0	0	0	0	(FL wCu)	(FL TC)	0	(FL wTr)	
Factor Capital	4	1	FK	(Fk A)	0	0	0	0	0	0	0	0	(Fk wCu)	(FK TC)	0	(Fk wTr)	
Household	5	10	iH	0	(iH FL)	(iH Fk)	(iH iH)	(iH iCr)	(iH iG)	0	0	0	(iH wCu)	(iH TC)	0	(iH wTr)	
Corporate	6	1	iCr	0	0	(iCr Fk)	(iCr iH)	(iCr iCr)	(iCr iG)	0	0	0	(iCr wCu)	(iCr TC)	0	(iCr wTr)	
Government	7	1	iG	0	0	0	(iG iH)	(iG iCr)	(iG iG)	(iG iTx)	0	0	(iG wCu)	(iG TC)	0	(iG wTr)	
Tax	8	1	iTx	(iTx Co)	0	0	0	0	0	0	0	0	(iTx wCu)	(iTx TC)	(iTx wTr)	0	
Subsidy	9	1	iSu	0	0	0	0	0	(iSu iG)	0	0	0	0	(iSu TC)	0	0	
Capital A/C	10	1	Cc	0	0	0	(cC iH)	(cC iCr)	(cC iG)	0	0	0	(cC wCu)	(cC TC)	0	(cC wTr)	
World Consolidated Current A/C	11	1	wCu	0	(wCu A)	(wCu FL)	(wCu Fk)	(wCu iH)	(wCu iCr)	(wCu iG)	0	(wCu iSu)	(wCu Cc)	0	(wCu TC)	(deleted)	0
Total Row/Col	12	1	TR	(TR Co)	(TRA)	(TR FL)	(TR Fk)	(TR iH)	(TR iCr)	(TR iG)	(TR iTx)	(TR iSu)	(TR Cc)	(TR wCu)		(TR mCo)	(TR wTr)
Balance	1	Bal	(TC-TR) Co	(TC-TR) A	(TC-TR) FL	(TC-TR) Fk	(TC-TR) iH	(TC-TR) iCr	(TC-TR) iG	(TC-TR) iTx	(TC-TR) iSu	(TC-TR) Cc	(TC-TR) wCu				
Import	11a	24	mCo	0	(mCo A)	0	0	(mCo iH)	0	(mCo iG)	0	(wTr iSu)	(mCo cC)	(mCo TC)			
World Transfer	11b	1	wTr	0	0	(wTr FL)	(wTr Fk)	(wTr iH)	(wTr iCr)	(wTr iG)	0	0	0	(wTr TC)			

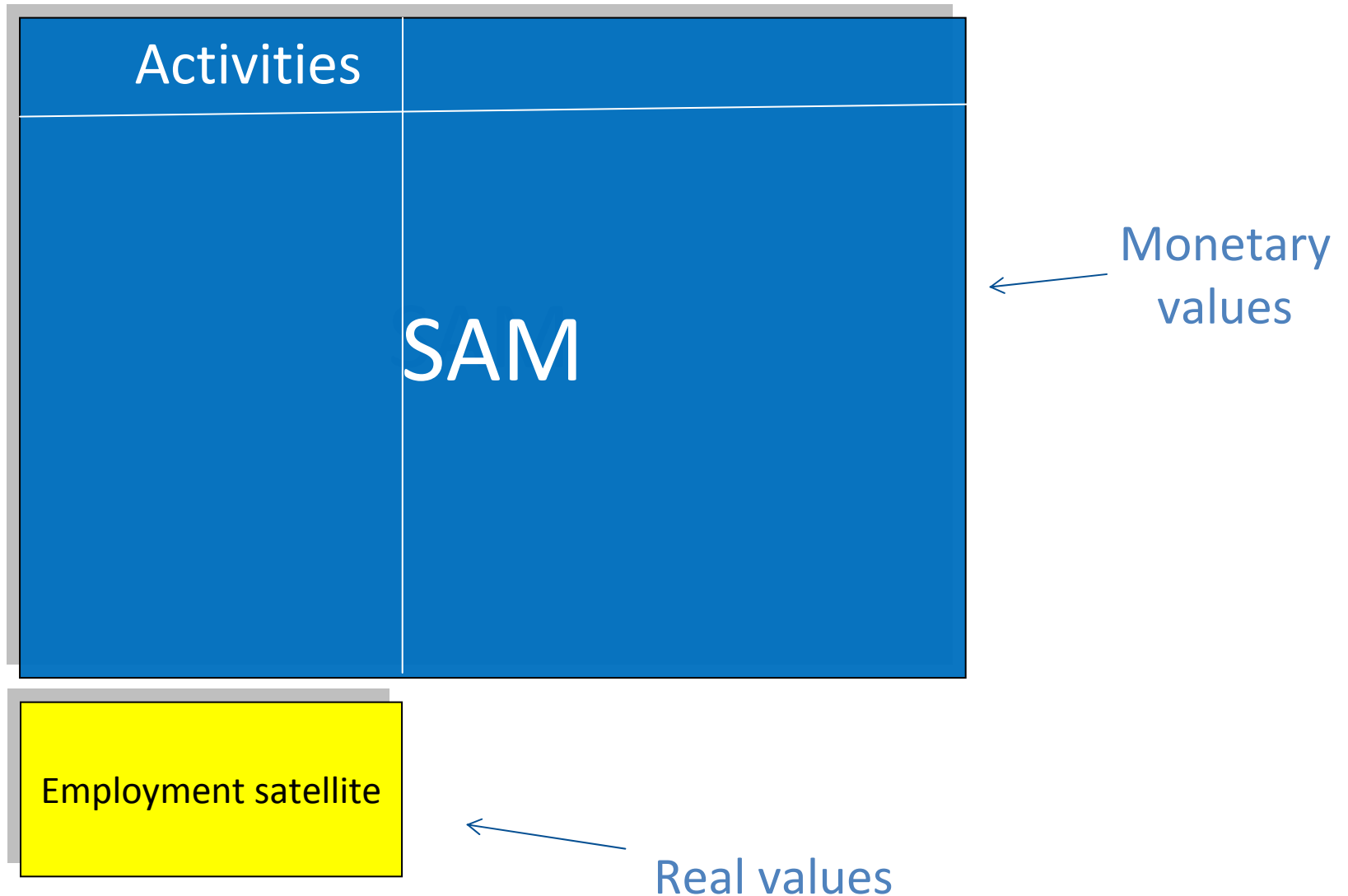
Consolidated # 11 = 11a + 11b

# Social Accounting Matrix

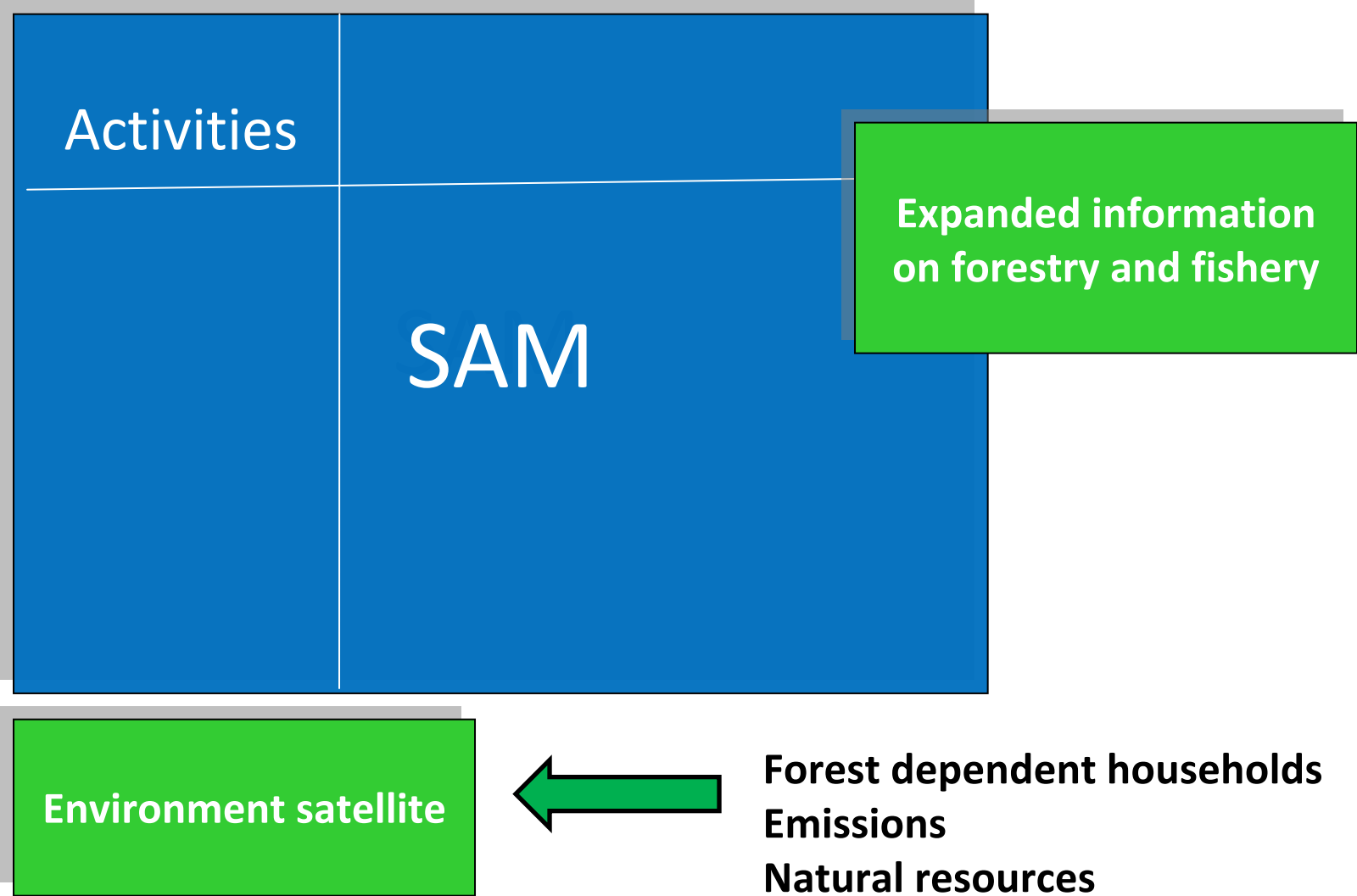




# An extended SAM



# Extending and expanding for Green Jobs



# DySAM and the environment

## What questions could be explored?

### **Analysis of “green” investments**

Expansion of Biofuels/gas

### **Analysis of a target**

Reduce Co2 emissions by 20% (example from Costa Rica)

### **Comparative analysis – which path to choose?**

Strategies for greening the economy

- comparison: business as before or « green » economy?

Sustainable forestry management

# Issues for discussion

- **Feasibility:** data availability and reliability?
- **Usefulness** of such an analytical tool for green policy?
- Can **synergies** between development investments and environmentally sustainable approaches be strengthened through use of DySAM???
- Are you interested in DySAM? – Apply to our **training** programme

# Building the DySAM

- **Assessment of data quality**
- **Dynamic Macro SAM**
  - SAM 2005 + SNA time series → DySAM
- **Dynamic Sectoral SAM**
  - DySAM algorithm includes reality checks
- **Computation of multipliers**
  - Forward / backward / decompositions

- Matrix
- Column
- Row
- Scalar

		17				14											
		Factor (F)				Institutions (i)											
Dimension	#	#	1	2	3	4	5	6	7	8	9	10	11	12	11a	11b	
ACCOUNT	81	Label	Co	A	FL	FK	iH	iCr	iG	iTx	iSu	Cc	wQu	TC	mCo	wTr	
Commodity	1	24	Co	0	(Co A)	0	0	(Co iH)	0	(Co iG)	0	0	(Co Cc)	(Co wQu)	(Co TC)	(Co mCo)	0
Activity	2	24	A	(A Co)	0	0	0	0	0	0	(A iSu)	0	0	(A TC)	0	0	
Factor Labor	3	16	FL	0	(FL A)	0	0	0	0	0	0	0	(FL wQu)	(FL TC)	0	(FL wTr)	
Factor Capital	4	1	FK	0	(FK A)	0	0	0	0	0	0	0	(FK wQu)	(FK TC)	0	(FK wTr)	
Household	5	10	iH	0	0	(iH FL)	(iH FK)	(iH iH)	(iH iCr)	(iH iG)	0	0	(iH wQu)	(iH TC)	0	(iH wTr)	
Corporate	6	1	iCr	0	0	(iCr FL)	(iCr FK)	(iCr iH)	(iCr iCr)	(iCr iG)	0	0	(iCr wQu)	(iCr TC)	0	(iCr wTr)	
Government	7	1	iG	0	0	0	0	0	0	0	0	0	(iG wQu)	(iG TC)	0	(iG wTr)	
Tax	8	1	iTx	(iTx Co)	0	0	0	0	0	0	0	0	(iTx wQu)	(iTx TC)	0	0	
Subsidy	9	1	iSu	0	0	0	0	0	(iSu iG)	0	0	0	0	(iSu TC)	0	0	
Capital A/C	10	1	Cc	0	0	0	0	(cCiH)	(cCiCr)	(cCiG)	0	0	(cCwQu)	(cC TC)	0	(cCwTr)	
World Consolidated Current A/C	11	1	wQu	0	(wQu A)	(wQu FL)	(wQu FK)	(wQu iH)	(wQu iCr)	(wQu iG)	(wQu iSu)	(wQu Cc)	0	(wQu TC)	(deleted)	0	
Total Row/Col	12	1	TR	(TR Co)	(TR A)	(TR FL)	(TR FK)	(TR iH)	(TR iCr)	(TR iG)	(TR iTx)	(TR iSu)	(TR Cc)	(TR wQu)	(TR mCo)	(TR wTr)	
Balance	1	Bal	(TC-TR) Co	(TC-TR) A	(TC-TR) FL	(TC-TR) FK	(TC-TR) iH	(TC-TR) iCr	(TC-TR) iG	(TC-TR) iTx	(TC-TR) iSu	(TC-TR) Cc	(TC-TR) wQu				
Import	11a	24	mCo	0	(mCo A)	0	0	(mCo iH)	0	(mCo iG)	0	(wTr iSu)	(mCo cC)	(mCo TC)			
World Transfer	11b	1	wTr	0	0	(wTr FL)	(wTr FK)	(wTr iH)	(wTr iCr)	(wTr iG)	0	0	0	(wTr TC)			

Terima Kasih!

Consolidated #  
11 = 11a + 11b