

LAND VALUE RETURN & RECYCLING

Funding Transportation Infrastructure

For Increased Productivity

And Financial Sustainability

Program

Guidebook to Funding Transportation Through Land Value Return & Recycling, NCHRP Report #873, was published in 2018. A few highlights from the Guidebook are presented here.

- I. What is Land Value Return & Recycling?
 - FAQ
- II. How Does Land Value Return & Recycling Compare to Other “Value Capture” Techniques?
 - FAQ
- III. Implementation Challenges & Opportunities
 - FAQ
- IV. Conclusion

WHAT IS LAND VALUE RETURN & RECYCLING?

- When infrastructure is well-designed and well executed, it inflates the price of nearby land.
- Returning publicly-created land value to the public sector that created it and recycling it for infrastructure creation, operations and maintenance is “**Land Value Return & Recycling**” (“**LVERR**”).

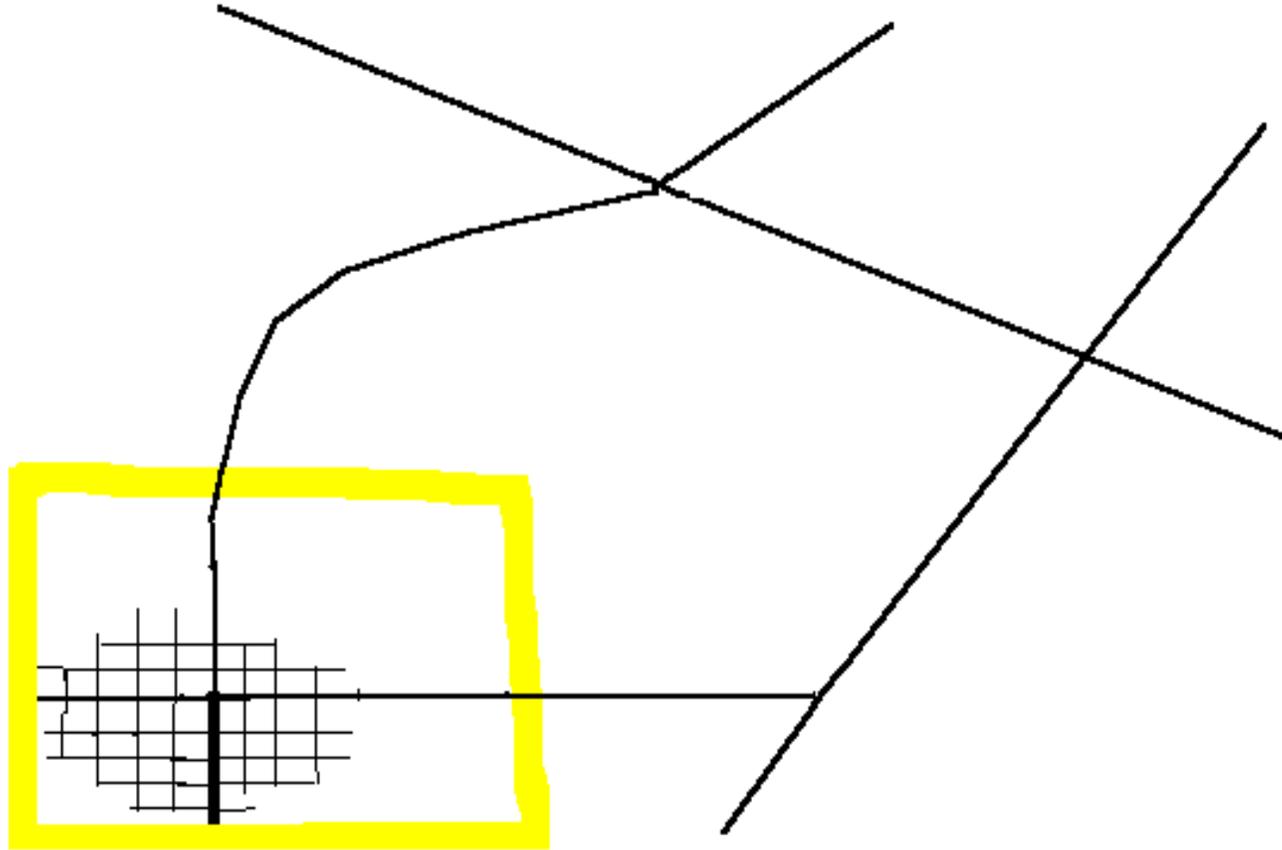
How Does LVRR Relate To “Value Capture?”

- LVRR is a subset of Value Capture funding techniques.
- “Value Capture” has been used to include funding techniques that capture privately created value (e.g. development impact fees) or that merely segregate public revenues without necessarily returning publicly-created land value (e.g. tax increment financing).
- “Value Capture” is not self-explanatory and is not understood by most people. To some people, “capture” sounds hostile.
- “Land Value Return & Recycling” is more precise, easier to understand and hopefully more appealing.

Why Is Land Value Return and Recycling (LVRR) Important?

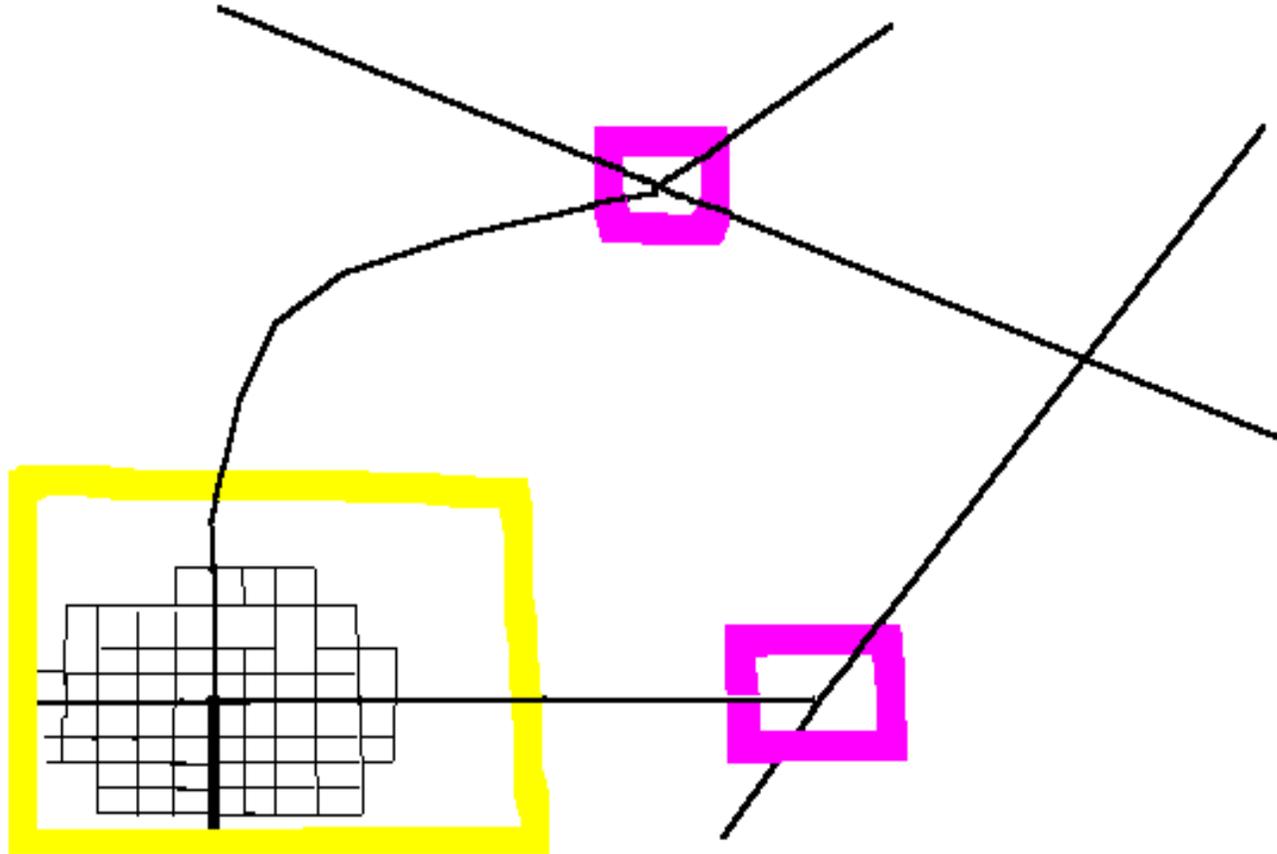
- How We Raise Funds for Transportation Is Just As Important As How Much Funding We Raise.
- LVRR Is A Tool To Integrate Transportation and Land Use.
- LVRR Is An Overlooked Source of Transportation Funding.

Transportation & Land Use: The Infrastructure Conundrum



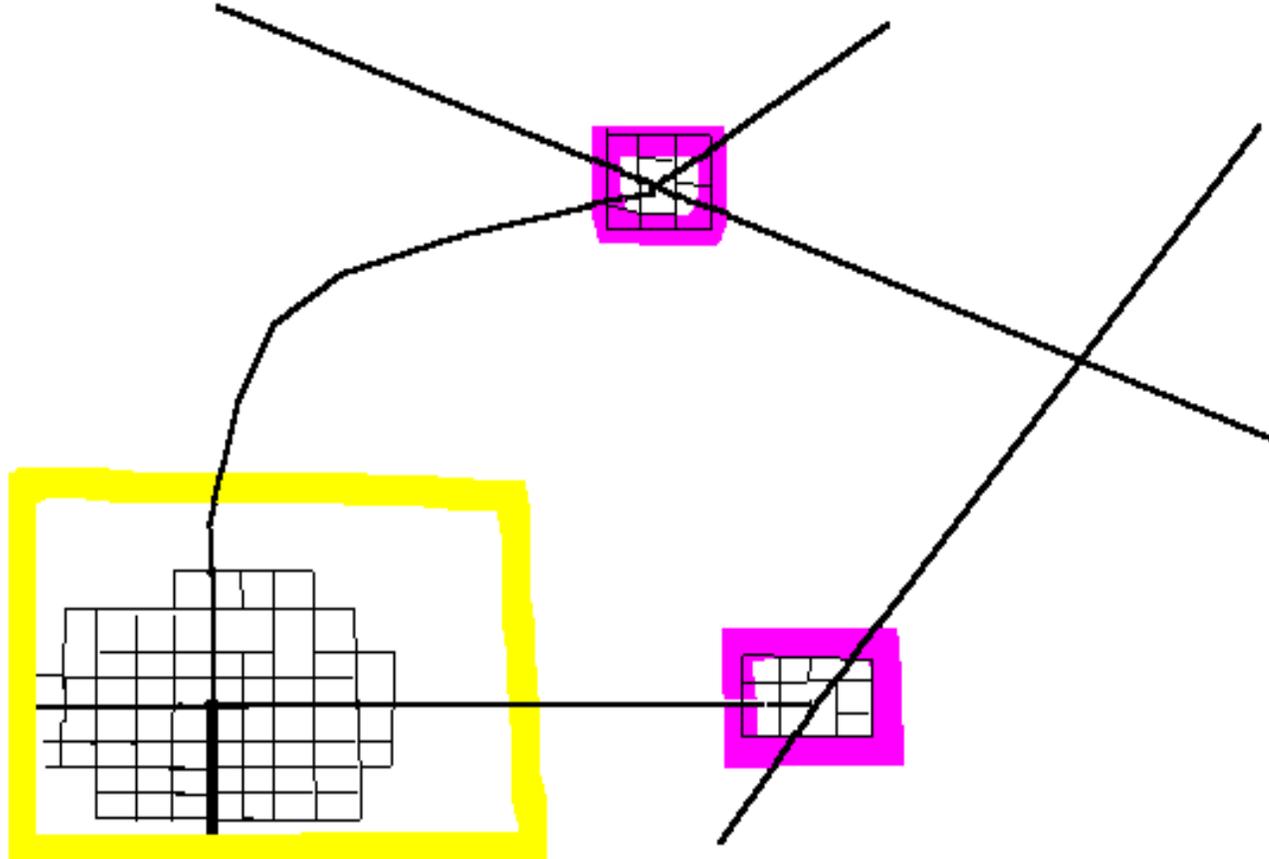
Transp. Facility = Growth Opport.

Transportation & Land Use: The Infrastructure Conundrum



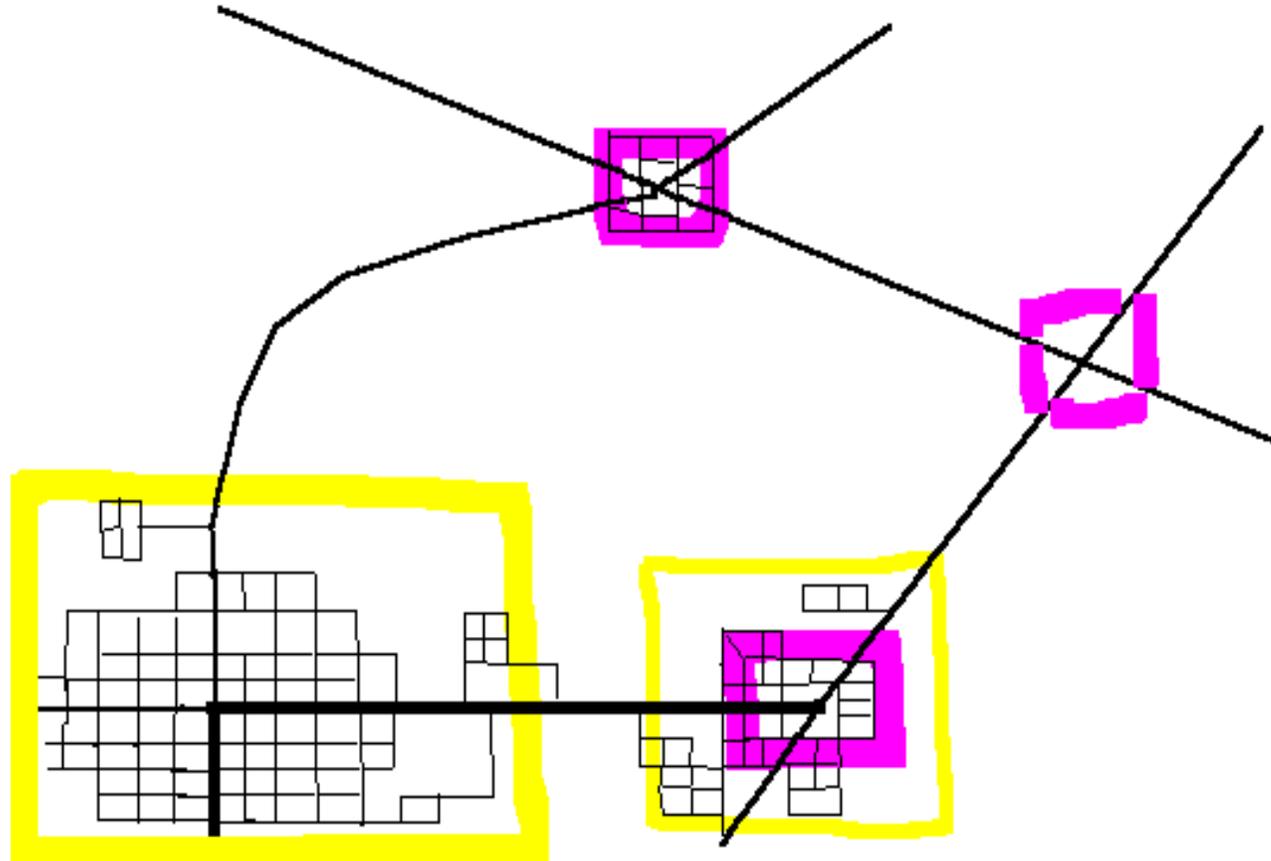
Rising Land Costs Impede Growth

Transportation & Land Use: The Infrastructure Conundrum



Growth Diverted to Cheap Sites

Transportation & Land Use: The Infrastructure Conundrum



Cycle Begins Again

Transportation & Land Use: The Infrastructure Conundrum

- Communities create infrastructure to facilitate development.
- Infrastructure inflates the price of well-served land.
- Higher land prices push development to cheaper, but more remote sites.
- Communities run after new development with more infrastructure, but never catch up.
- The resulting sprawl impairs the environment, creates auto dependency and traffic congestion, and strains our budgets due to the duplication of expensive infrastructure in low-density areas.

Transportation Improvements: “No Good Deed Goes Unpunished”

- To help low-income communities, transportation agencies might:
 - Reduce Roadway Congestion
 - Reduce Crashes & Injuries
 - Enhance Transit
- If we accomplish any of these improvements, land prices rise, rents rise and the intended beneficiaries might be displaced.
- Tax dollars, intended to help the poor, end up enriching Landlords (who tend not to be poor).

Transportation Improvements: “No Good Deed Goes Unpunished”

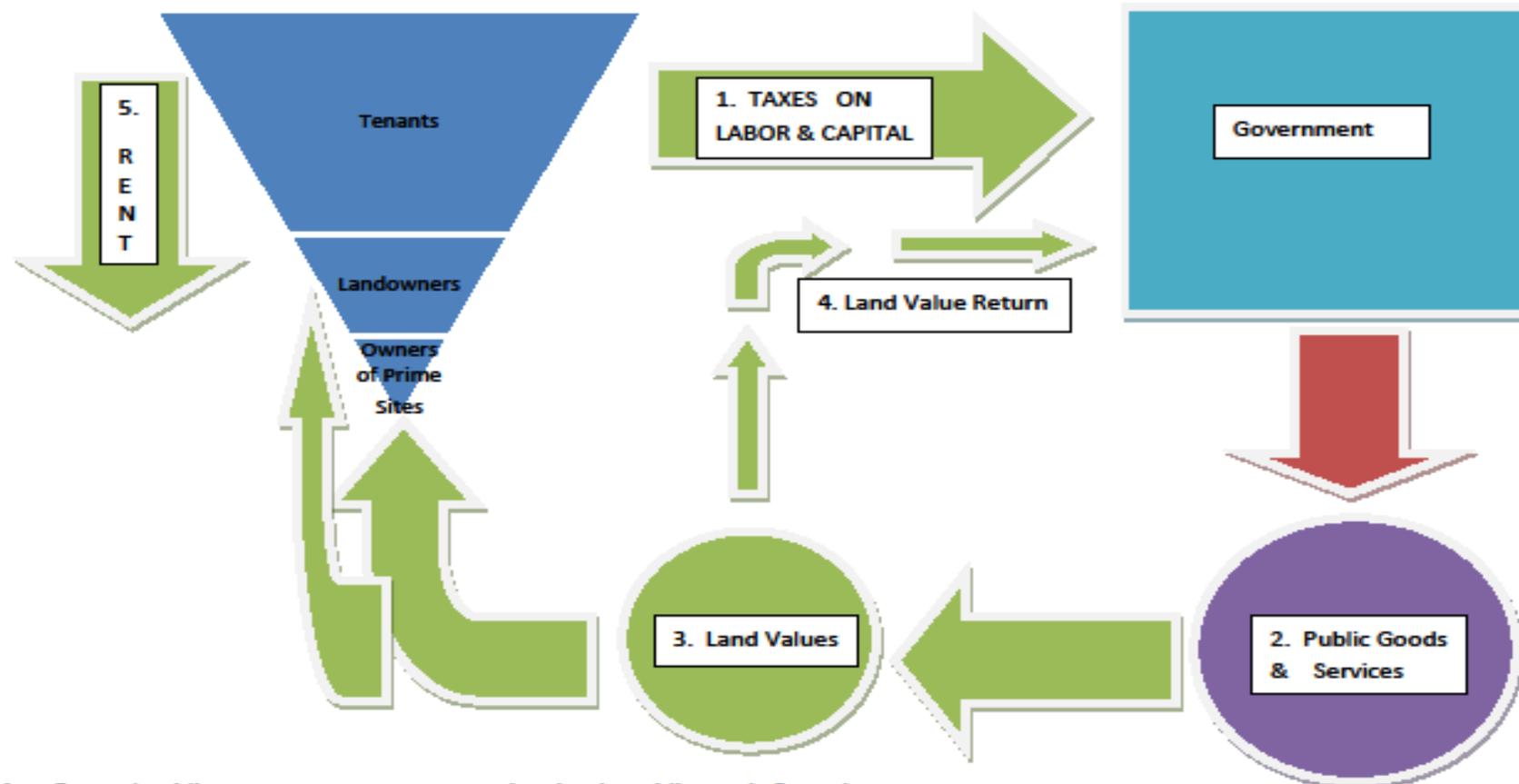
- In a working-class neighborhood of London, people had to pay a toll to get to their jobs on the other side of a river.
- The public felt this was unfair & asked government to remove the toll.
- Within a short time after the toll was removed, rents in the neighborhood rose by the amount of the foregone toll.
- Workers were not better off. (Worse off if they didn't use the bridge.)
- Public funds, spent to help low-income residents, enriched affluent landlords instead.

-- Winston Churchill Address to Parliament, 1903

LAND SPECULATION

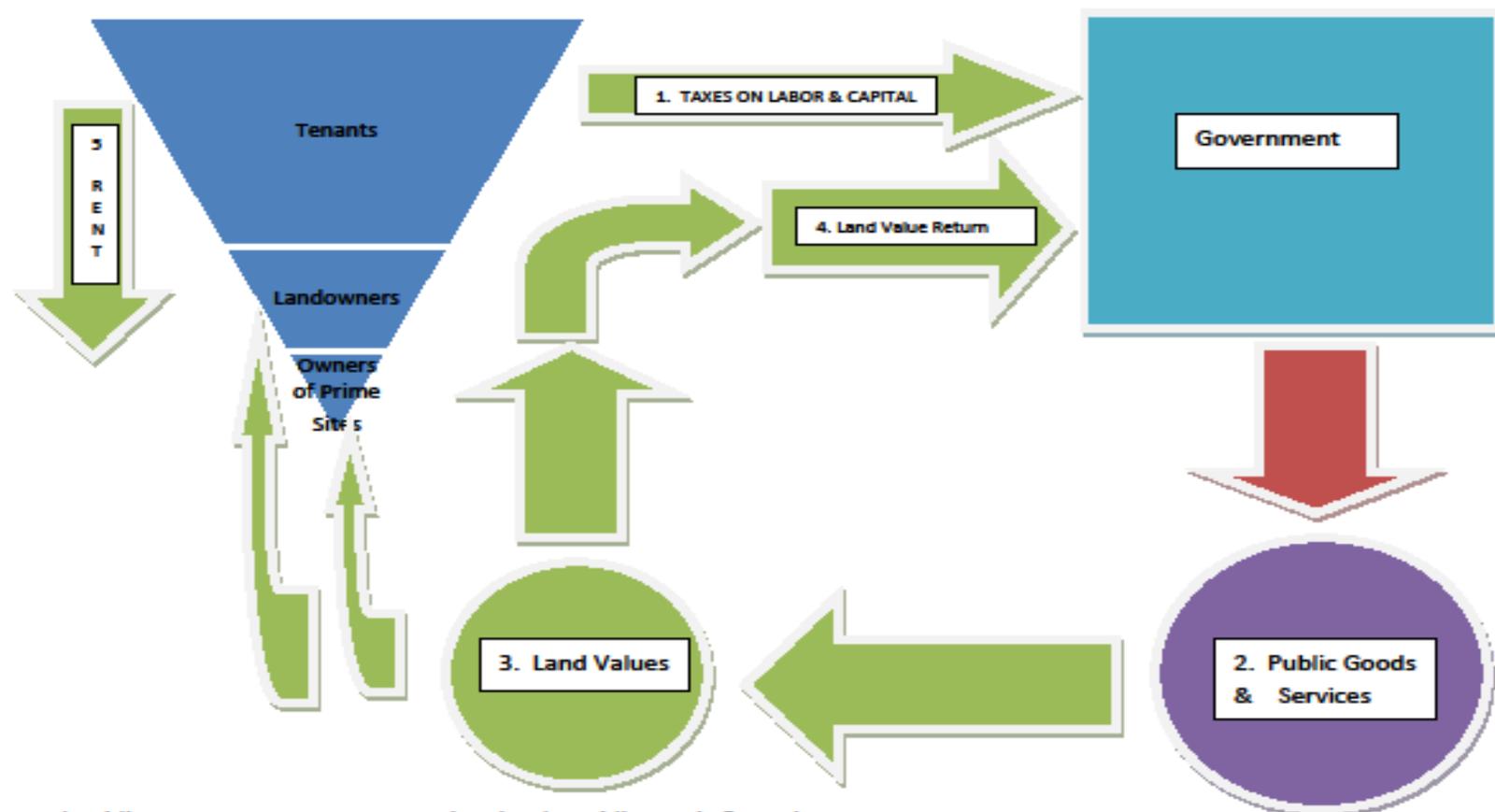
- Land Speculation: Buying land for future appreciation.
- The ability of private landowners to appropriate publicly-created land value is the fuel for land speculation.
- Land speculation creates nothing of value.
- Land speculation does create:
 - Artificial scarcity of developable land (particularly at prime locations)
 - Real increases in land prices (particularly at prime locations)
 - Sprawl
 - Periodic Real Estate Booms & Busts Create Hardships for Most

LAND VALUE CREATION & CONSEQUENCES



1. General public pays taxes to generate and maintain public goods & services.
 - a. Owners of prime sites contribute less than others because most of their taxes are passed through to tenants and consumers.
2. Governments use taxes to produce public goods & services
3. Benefits of many public goods & services are capitalized into higher land values, mainly on prime sites. ("Location, location, location!")
4. Land Value Return: User fees plus access fees (land taxes). Typical property tax returns only 1% or 2% of publicly-created land value.
5. Most land values created by government are windfalls to owners of prime sites who charge premium rents to tenants for the right to access these public goods and services. NOTE: Tenants pay twice for government services. Once in taxes & again in land rent.

LAND VALUE RECYCLING FOR SUSTAINABILITY & EQUITY



1. General public pays taxes to generate and maintain public goods & services.
 - a. Owners of prime sites contribute more than before. Land value return fees are **not** passed through to tenants and consumers.
 - b. Taxes on labor and capital can be reduced as a result of recycling publicly-created land values. (See step 4)
2. Governments use taxes to produce public goods & services
3. Benefits of many public goods & services are capitalized into higher land values ("Location, location, location!")
4. More robust user fees and access fees return more publicly-created land values to the public. (Taxes on building values can be reduced.)
5. Reduced windfalls to private landowners reduce land prices and reduce land rents from tenants to landowners. Reduced taxes on buildings make buildings more affordable, so tenants get more value for the building rents that they pay.

FAQ 1: When infrastructure is improved and land values increase, don't property taxes recapture this?

Tax rates vary, but are typically 1% or 2% of value. This tax is collected each and every year.

For a long-lived asset in a low-inflation environment, the net present value of this stream of payments is equivalent to a one-time payment of about 10% to 20% of value.

- This reduces building construction, improvement and maintenance, **increasing building prices by between 10% and 20%.**
- This returns only 10% to 20% of publicly-created land value, allowing **80% to 90% of publicly-created land value to end up as windfalls to private landowners.**

FAQ 2: Are There Examples of LVRR?

- In the mid 1800s, streets in Washington, DC were mostly unpaved.
- Dirt roads were dusty. In wet weather, mud made travel very difficult and unpleasant.
- Paving streets and sidewalks was a tremendous advance. It made properties more accessible and the air cleaner.
- Everyone would benefit.
- Why not use general taxes to pay for paved streets?

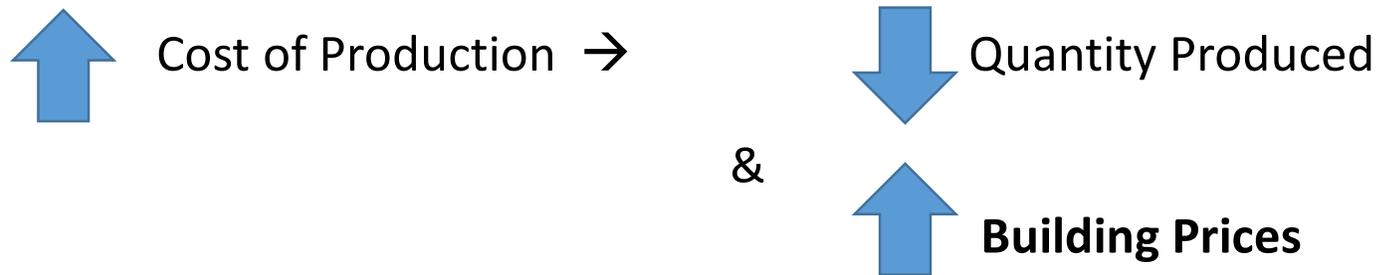
FAQ 2: LVRR Examples

- People who owned property fronting a paved street would benefit – even if they never walked on the new streets or sidewalks.
 - No longer would folks track dust, mud and manure into their homes & places of business!
 - These landowners could charge higher rents or obtain higher sales prices.
- In 1894, Congress enacted law requiring adjacent property owners to contribute 50% of the cost of first-time paving of streets, gutters, curbs and sidewalks through a special assessment.

FAQ 3: How does LVRR overcome the Infrastructure Conundrum?

Development Impact Fee (**DIF**) v **LVRR**:

- **DIF**: Fee Imposed on Building Value to Offset Infra Costs
- **DIF**: No Building, No Fee. THEREFORE: **DIF** = **Cost of Production**



Do we want to reduce development near infrastructure and increase its price?

A fee on building value appropriates privately-created value. It burdens builders, future occupants & consumers.

FAQ 3: How does LVRR overcome the Infrastructure Conundrum?

- **LVRR**: Fee Based on Land Value

Land Supply NOT Reduced by LVRR. Land is NOT Produced.

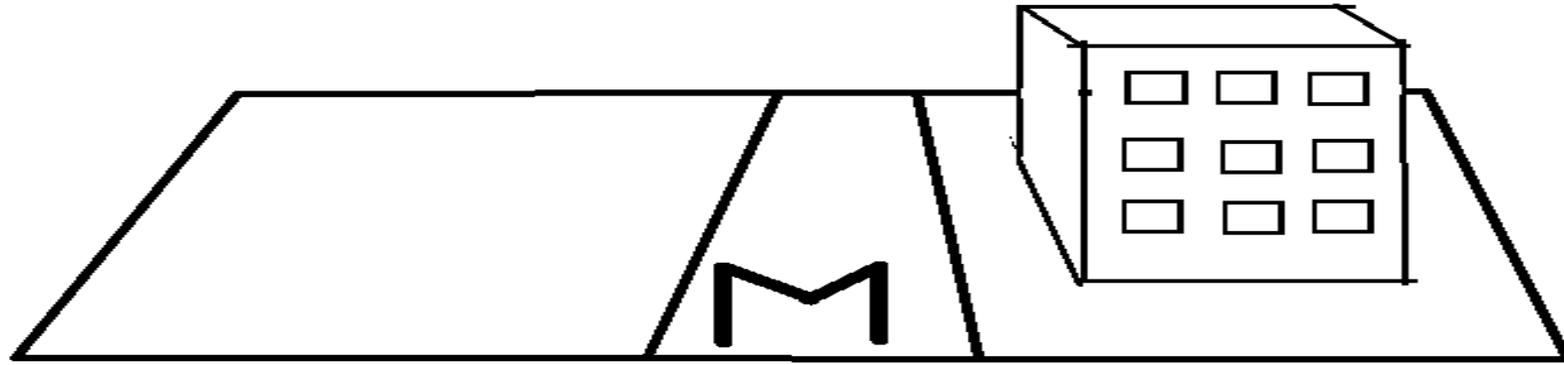
LVRR \neq Cost of Production LVRR = Cost of Ownership

- What's the Impact of LVRR on Land Price?
 - Land Price Relates to the Expected Benefits of Land Ownership



- LVRR does NOT burden builders, future occupants or consumers.

Transit Station (M) Creates Equal Value on Two Lots



Seeking to Raise \$ 1,000 in Total Revenue:

	Vacant Lot	Developed Lot
DIF:	\$ 0	\$ 1,000
LVRR	\$ 500	\$ 500

DIF v LVRR

- Landowner Responses:

- Avoid the Development Impact Fee



- Number / size / quality of new buildings
(Build in lower-tax locations instead)



- Maintenance / improvement of existing buildings

- Fund Land Value Return

- Land Value Return Cannot be Avoided

- Location-value of parcel not determined by owner

- Owner can't move land to a lower-tax location

- High-value land will be developed – or sold to someone who will

FAQ 3: How does LVRR overcome the Infrastructure Conundrum?

- Under LVRR, landowners pay for infrastructure benefits in proportion to benefits received. Highest payments due from high-value sites near urban infrastructure amenities.
- LVRR encourages development of high-value land. Instead of pushing development away, LVRR draws development to transportation and other infrastructure amenities.
- Thus, LVRR reduces sprawl, infrastructure duplication, per capita infrastructure costs and tax burdens.

COMPARING LVRR TO OTHER VALUE CAPTURE TECHNIQUES

LVRR?

- Land Value Tax / Split-Rate Tax
- Special (or Benefit) Assessment District
- Joint Development / Access Fees
- Betterment Levies
- Development Impact Fees / Exactions
- Transportation Utility Fees
- Tax Increment Financing
- Land Sale / Lease

COMPARING LVRR TO OTHER VALUE CAPTURE TECHNIQUES

	LVRR?
• Land Value Tax / Split-Rate Tax	YES
• Special (or Benefit) Assessment District	Maybe
• Joint Development / Access Fees	YES
• Betterment Levies	YES
• Development Impact Fees / Exactions	NO
• Transportation Utility Fees	NO
• Tax Increment Financing	NO
• Land Sale / Lease	YES

FAQ 4: Are Non-LVRR Techniques Appropriate?

- Funding techniques have unique development incentives. The key is to employ the right incentives in appropriate situations.
- Builders often prefer to develop cheaper, but more remote sites. These sites are cheap because they lack infrastructure. Builders hope that the public sector will extend infrastructure to their new development later, thereby subsidizing it.
- In this situation, a development impact fee would be appropriate. This would discourage development where infrastructure is lacking and create a more level playing field with land where infrastructure already exists.
- On the other hand, where infrastructure with excess capacity exists, LVRR encourages more affordable and compact infill development.

FAQ 5: What's the Relationship Between LVRR and User Fees?

- LVRR is like an infrastructure access fee.
- User fees and access fees are related.
- Land next to a highway interchange might be valuable for businesses relying on interstate trucking. However, if a toll is imposed or increased on that highway, the value of land near the interchange will likely decline. If an existing toll is reduced or eliminated, land value will likely rise.

FAQ 5: What's the Relationship Between LVRR and User Fees?

- In the 1890s, the Chevy Chase Land Company bought 1700 acres of farms & forests on both sides of the DC/MD border. This land was cheap because it was difficult to get to the jobs and shops downtown.
- CCLC constructed a streetcar line from downtown to its landholdings. CCLC charged a few pennies to ride the streetcar. Fares may have covered the cost of the conductor, but not the capital costs.
- CCLC recouped its capital costs because its land became valuable for homes and businesses now that there was cheap and convenient access to downtown.
- If CCLC had attempted to recoup all streetcar costs through fares, fares would have been too expensive. Nobody would have ridden. Both the streetcar and the land development projects would have failed. It's important to get the balance right between user fees and access fees (LVRR).

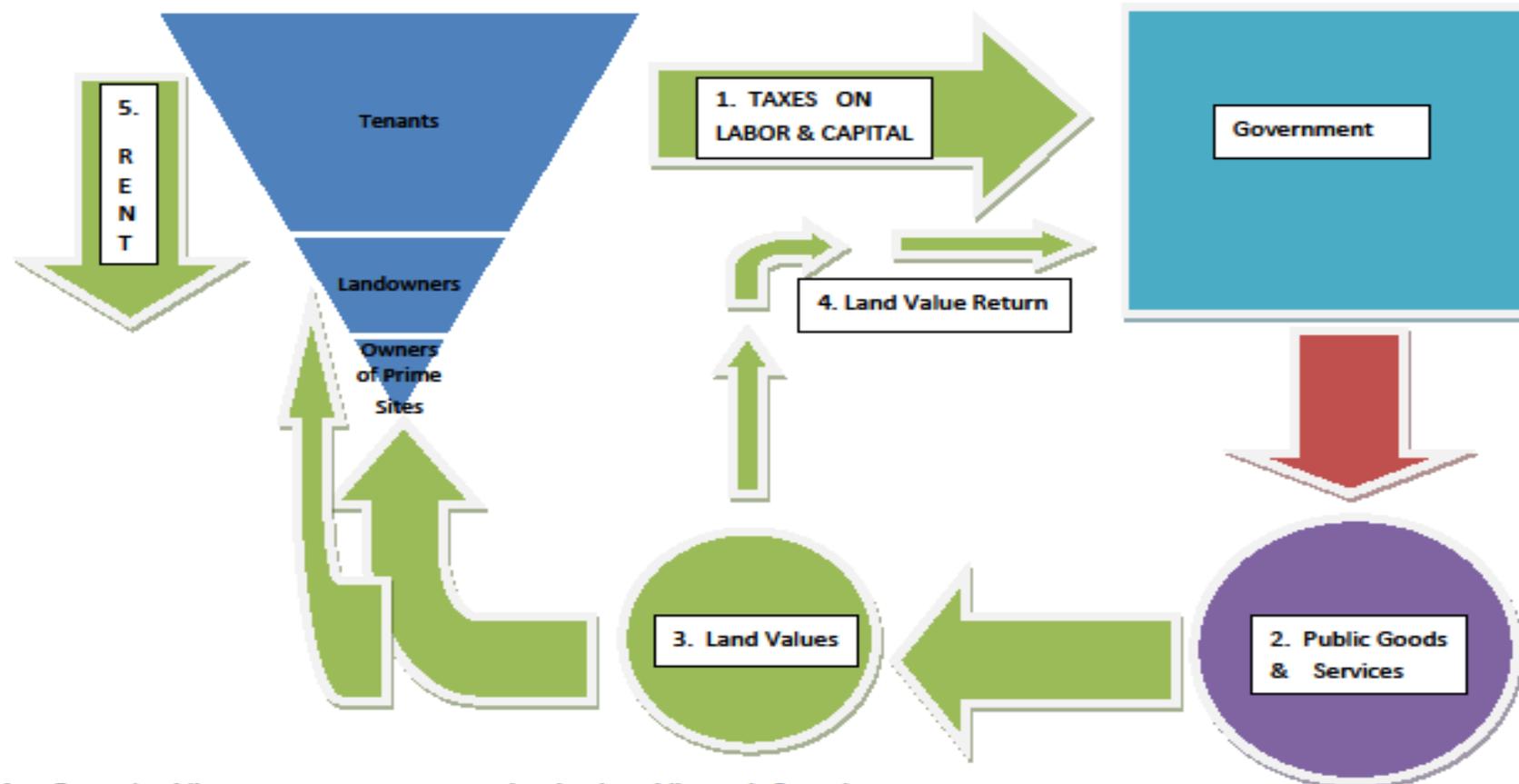
Implementation Opportunities & Challenges

- **OPPORTUNITY:** COMMUNITIES ARE ALREADY DOING IT.
- Most jurisdictions employ a traditional property tax which is levied against both
 - Privately-created building values; and
 - Publicly-created land values.
- To the extent that most communities are levying a tax against land value, most communities are already practicing some level of LVRR.
- Gradually shifting the tax off of building values onto land values is an incremental change that can have profound beneficial effects.

Implementation Opportunities & Challenges

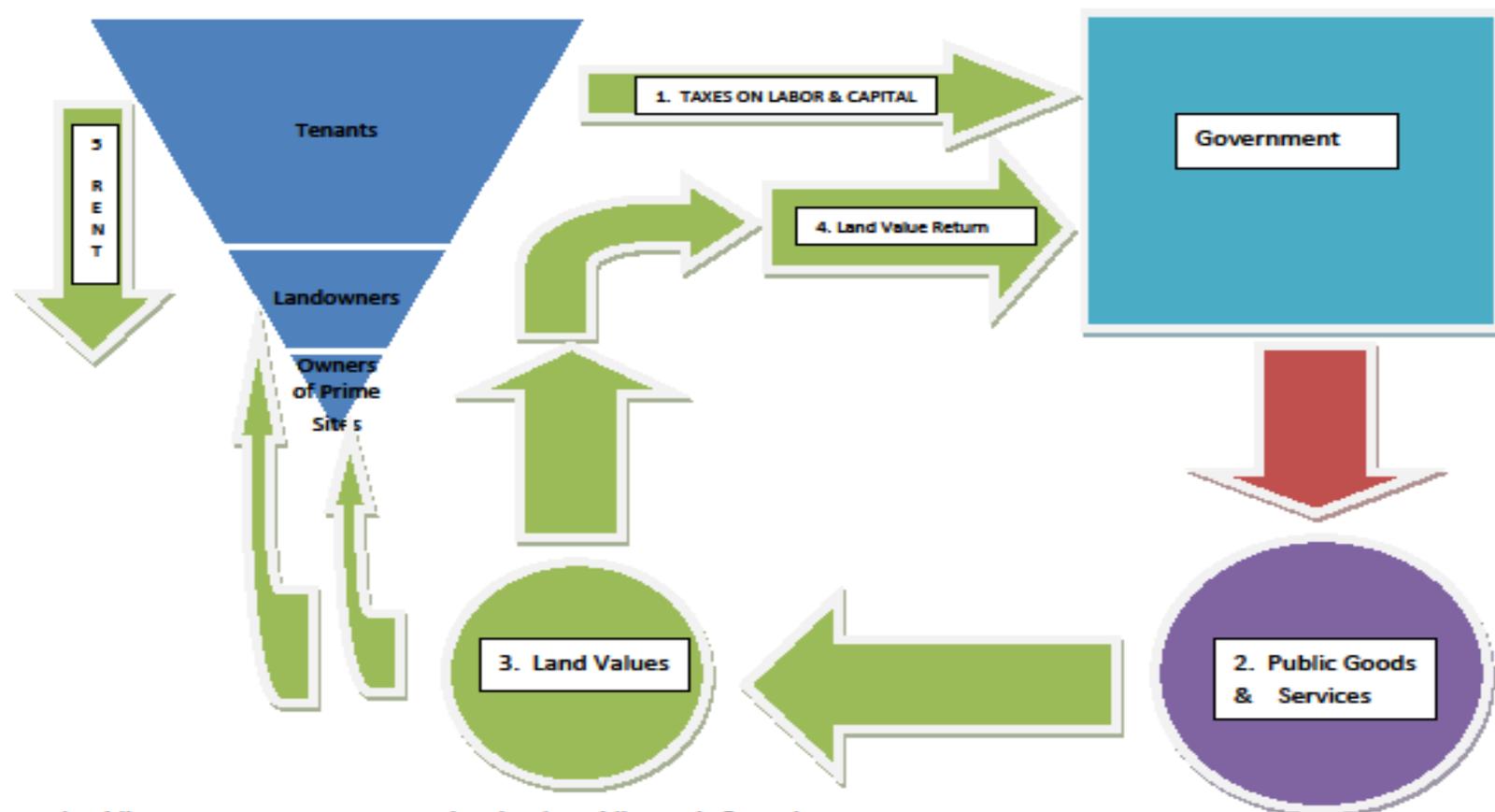
- **OPPORTUNITY:** COMMUNITIES ARE DESPERATE FOR INFRASTRUCTURE FUNDING.
 - Can state and local governments continue to give away enormous amounts of publicly-created land value?
 - LVRR can help make infrastructure financially self-sustaining.
- **OPPORTUNITY:** COMMUNITIES CAN'T AFFORD SPRAWL
 - LVRR helps reduce sprawl and its environmental and fiscal harms
- **OPPORTUNITY:** LVRR PROVIDES A SOLUTION TO “NO GOOD DEED GOES UNPUNISHED.”

LAND VALUE CREATION & CONSEQUENCES



1. General public pays taxes to generate and maintain public goods & services.
 - a. Owners of prime sites contribute less than others because most of their taxes are passed through to tenants and consumers.
2. Governments use taxes to produce public goods & services
3. Benefits of many public goods & services are capitalized into higher land values, mainly on prime sites. ("Location, location, location!")
4. Land Value Return: User fees plus access fees (land taxes). Typical property tax returns only 1% or 2% of publicly-created land value.
5. Most land values created by government are windfalls to owners of prime sites who charge premium rents to tenants for the right to access these public goods and services. NOTE: Tenants pay twice for government services. Once in taxes & again in land rent.

LAND VALUE RECYCLING FOR SUSTAINABILITY & EQUITY



1. General public pays taxes to generate and maintain public goods & services.
 - a. Owners of prime sites contribute more than before. Land value return fees are **not** passed through to tenants and consumers.
 - b. Taxes on labor and capital can be reduced as a result of recycling publicly-created land values. (See step 4)
2. Governments use taxes to produce public goods & services
3. Benefits of many public goods & services are capitalized into higher land values ("Location, location, location!")
4. More robust user fees and access fees return more publicly-created land values to the public. (Taxes on building values can be reduced.)
5. Reduced windfalls to private landowners reduce land prices and reduce land rents from tenants to landowners. Reduced taxes on buildings make buildings more affordable, so tenants get more value for the building rents that they pay.

Implementation Opportunities & Challenges

- **CHALLENGE:** FEW UNDERSTAND THE DIFFERENCE BETWEEN TAXING LAND VALUES AND IMPROVEMENT VALUES.
- **CHALLENGE:** MANY COMMUNITIES NEED STATE LEGISLATION PERMITTING THE IMPOSITION OF DIFFERENT TAX RATES ON LAND VALUES AND IMPROVEMENT VALUES.
- **CHALLENGE:** SOME STATE LAWS PROHIBIT IMPOSING DIFFERENT TAX RATES ON LAND VALUES AND IMPROVEMENT VALUES
- **CHALLENGE:** TRANSPORTATION PROJECTS ARE SELECTED & FUNDED BY STATES & US GOVERNMENT. BUT LAND USE CONTROLS & PROPERTY TAX RATES ARE ESTABLISHED BY LOCAL GOVERNMENTS.

Steps Toward Implementation

- Identify key goals & objectives:
 - Establish a more equitable and sustainable economy
 - Make Infrastructure Financially Self-Sustaining
 - Obtain Fair Compensation from Infrastructure Beneficiaries
 - Integrate infrastructure creation and maintenance with land use policies to reduce
 - Urban sprawl
 - Traffic congestion
 - Wasteful infrastructure duplication
 - Total tax burdens
 - Meet development objectives to maximize housing affordability and job creation
- Identify state and local laws that permit or prohibit land value return and recycling.

Steps Toward Implementation

- Identify a Champion
- Educate the media
- Identify stakeholders and develop outreach campaigns appropriate for each group.
 - Create a coalition of organizations, communities and agencies
- Educate the public
- Enact permissive authorizing legislation at the State level.
- Enact state and/or local implementing legislation.

Steps Toward Implementation

- Implement a new approach toward infrastructure creation.
 - Old Approach:
 - Engineering studies determine demand and best location for public goods & services.
 - Obtain funding through federal and state appropriation process.
 - Construct the infrastructure.
 - New Approach:
 - Engineering studies determine demand and best location for public goods & services.
 - Assess publicly-created land values & calculate the level of land value return.
 - Understand the different incentives associated with different funding techniques and which incentives are aligned with community's land use and development objectives.
 - LVRR should be mandatory. If not, negotiate with landowners. Infrastructure will be provided only when and where landowners provide substantial land value return.
 - Establish intergovernmental coordination re funding, LVRR and land use controls.

FAQ 6: Examples of Successful LVRR

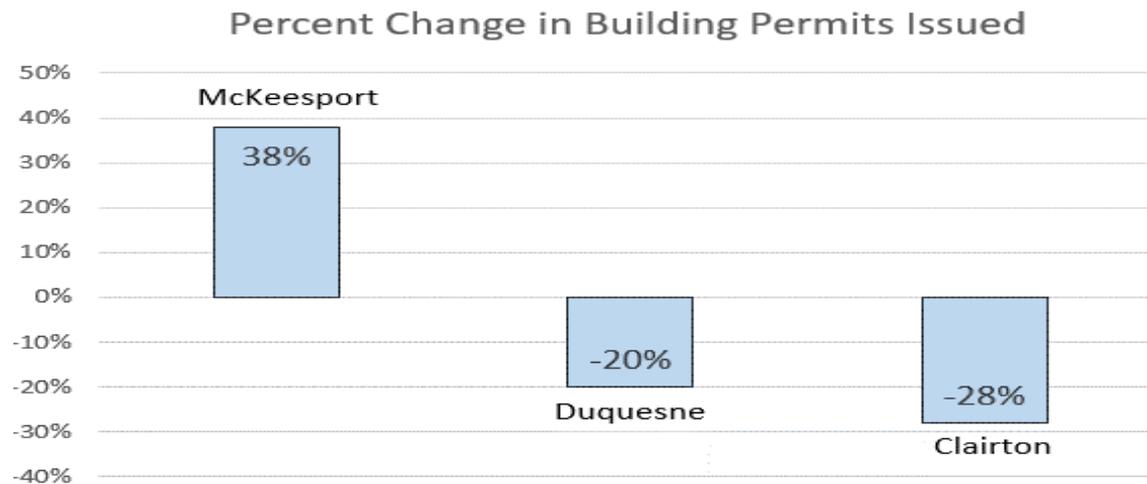
- Special Assessment Districts have been used successfully to
 - Improve Route 28 in Northern Virginia
 - Provide local funding the Metrorail's Silver Line in Northern Virginia
 - Generate landowner funding for a new, infill Metrorail transit station in Washington, DC. Through special assessments, land donations, and landowner funding for construction of adjacent streets, landowners contributed over a third of the costs for the NoMA / Gallaudet Station.
- Private developers acquired air rights to deck over and create new development atop the Center Leg Freeway (I-395) in the District of Columbia. Phase I of Capitol Crossing was recently completed. See <http://capitolcrossingdc.com/>.

FAQ 6: Examples of Successful LVRR

- After the earthquake of 1906, San Francisco abolished the property tax on improvements, but retained the tax on land values. San Francisco was quickly rebuilt as a compact and vibrant city in spite of the absence of federal disaster relief funding.
- In 1913, Pittsburgh adopted LVRR. Pittsburgh more successfully transitioned from manufacturing to a service-based economy than other rust-belt cities.
- In the early 1970s, Harrisburg, PA was distressed due to flooding and suburban flight. Harrisburg adopted LVRR in 1975 and, over 15 years, greatly reduced the number of vacant and boarded-up properties from several thousand to a few hundred.

FAQ 6: Examples of Successful LVRR

- McKeesport, Duquesne and Clairton are similar nearby steel towns. In each town, the steel mills closed and building permits declined for several years. McKeesport then adopted LVRR while Duquesne and Clairton kept their traditional property tax. McKeesport experienced an increase in building permits while Duquesne and Clairton continued to decline. Eventually Duquesne and Clairton adopted LVRR “defensively.”



FAQ 6: Examples of Successful LVRR

More examples of LVRR and value capture can be found in the *Guidebook for Funding Transportation Through Land Value Return and Recycling*.

NCHRP Report #873

<http://www.trb.org/Publications/Blurbs/177574.aspx>

Conclusion:

LAND VALUE RETURN & RECYCLING:

- Generates revenue
 - Advance critical transportation investments
 - Achieve transportation and other policy goals
- Creates land use incentives
 - Achieve land use goals/incentivize desired development
 - Discourage sprawl
 - Encourage reinvestment/discourage disinvestment
 - Enhance efficacy of zoning regulations
- Makes tax burden more equitable and fair
 - Infrastructure beneficiaries pay in proportion to benefits received
 - Public more fairly compensated for publicly-created benefits
 - Opportunity to reduce taxes on production and on those who do not benefit directly

NCHRP Report 873

Guidebook for Funding Transportation Through Land Value Return and Recycling

<http://www.trb.org/Publications/Blurbs/177574.aspx>

- Texas A&M Transportation Institute

in collaboration with

Just Economics, LLC
High Street Consulting Group
Economic Development Research Group
Ernst Basler + Partner

Presentation prepared and presented by:

Rick Rybeck, Director

r.rybeck@justeconomicsllc.com

Just Economics 

Just Economics LLC

1669 Columbia Rd., NW, Suite 116

Washington, DC 20009-3625

(202) 439-4176

<https://www.justeconomicsllc.com>

Prosperity | Sustainability | Equity

Value Return, Recycling, and Capture

Important Links

- **NCHRP Report # 873, “Guidebook to Funding Transportation Through Land Value Return and Recycling”**

<http://www.trb.org/Main/Blurbs/177574.aspx>

- **NCHRP Synthesis Report # 459, “Using the Economic Value Created by Transportation to Fund Transportation”**

<http://www.trb.org/Main/Blurbs/170750.aspx>

- **Value Capture: Capitalizing on the Value Created by Transportation, FHWA EDC 5**

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/value_capture.cfm