

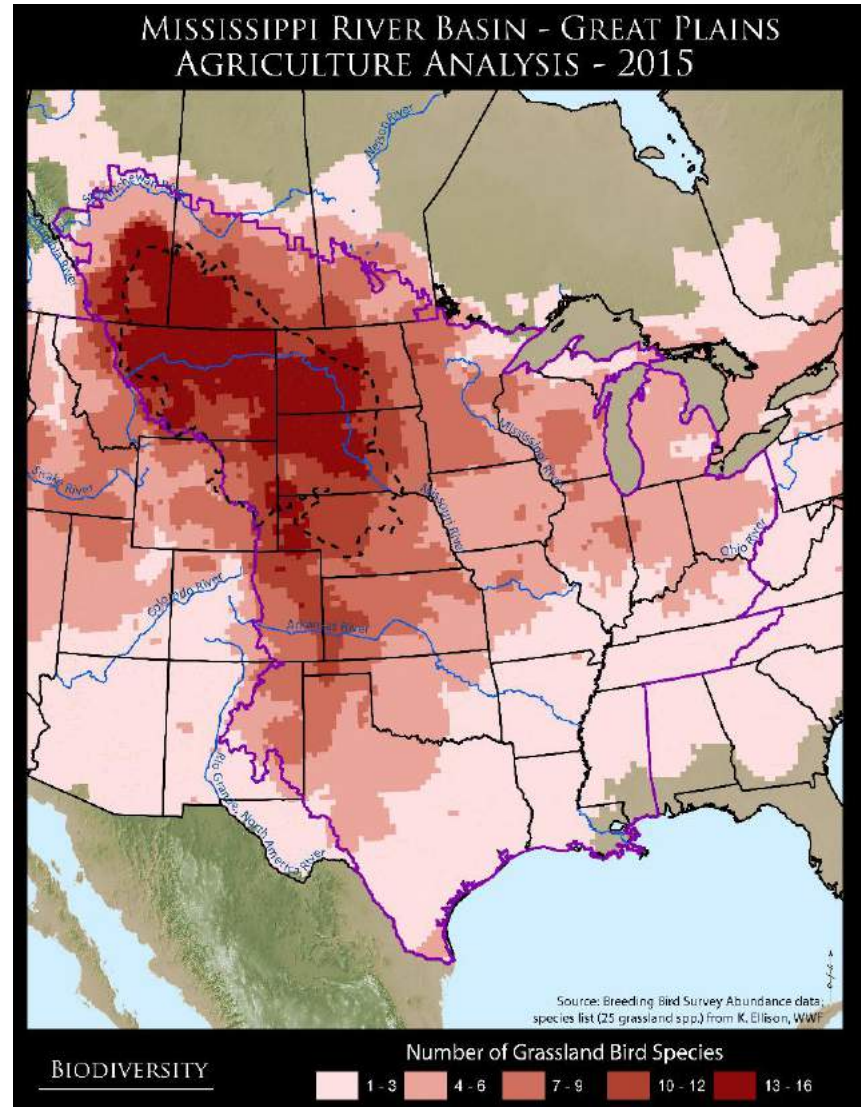
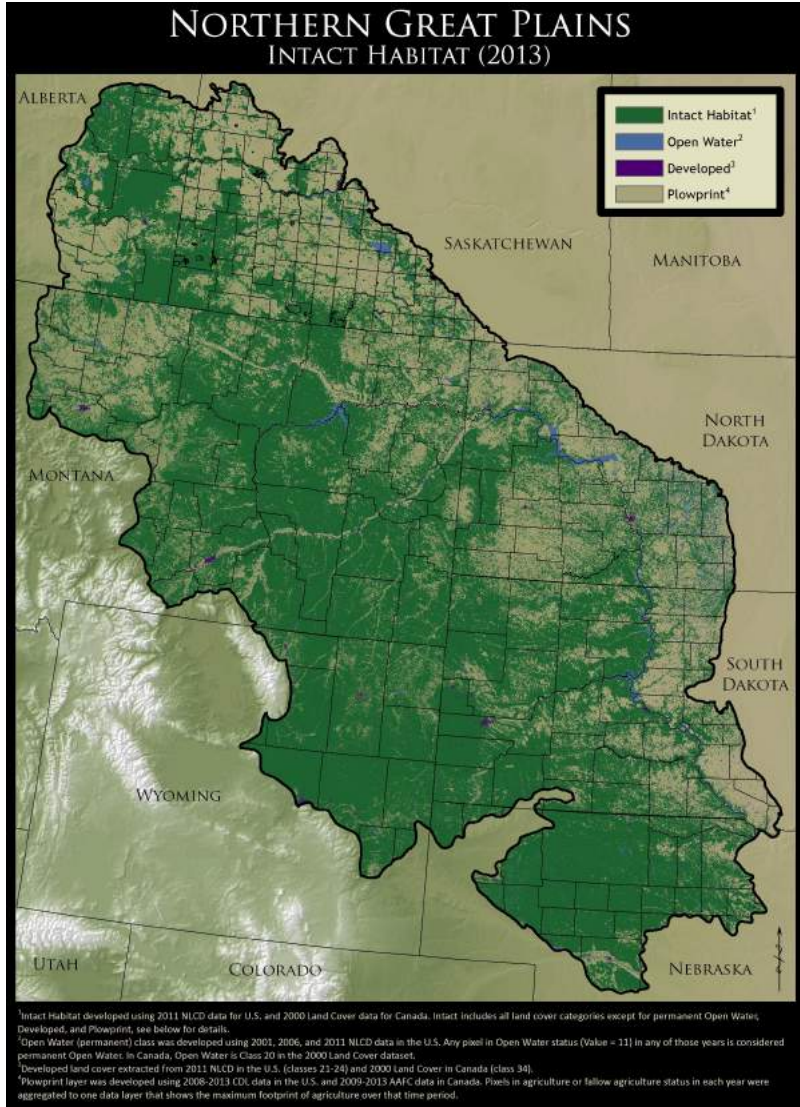


Grassland Ownership Trends and Community Resilience

Julia Haggerty, Montana State University



Ranchers manage over 80% of remaining intact habitat



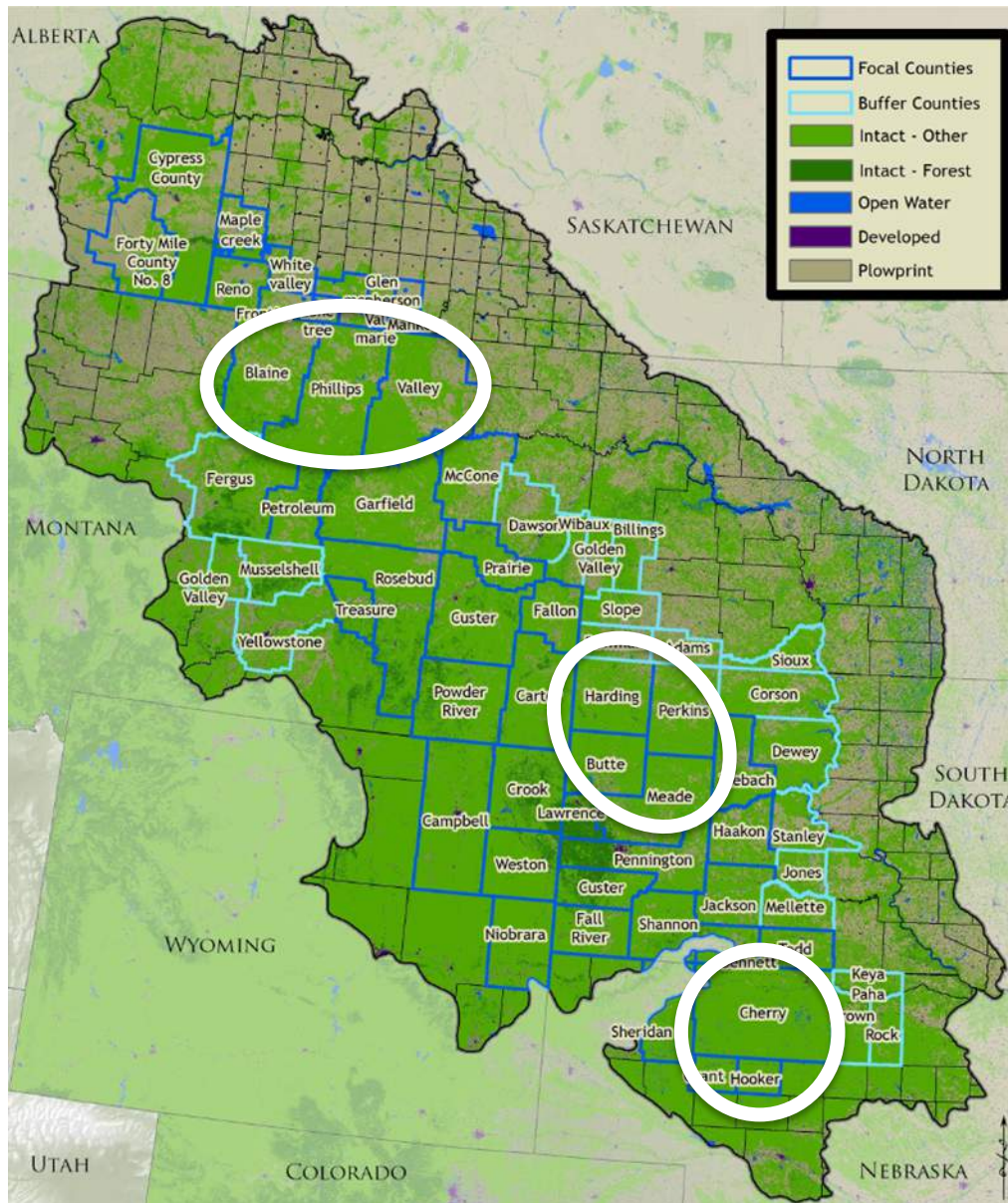
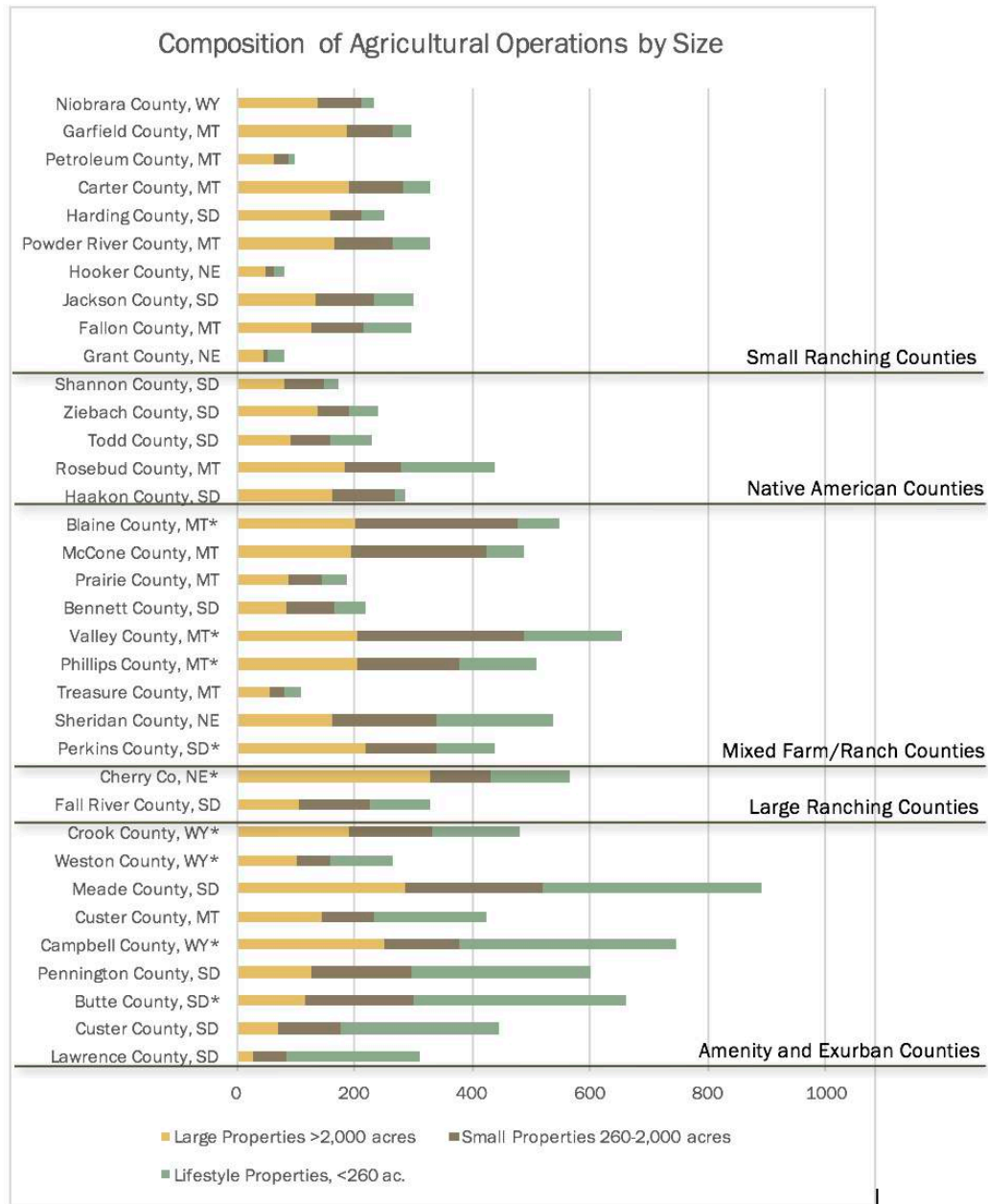
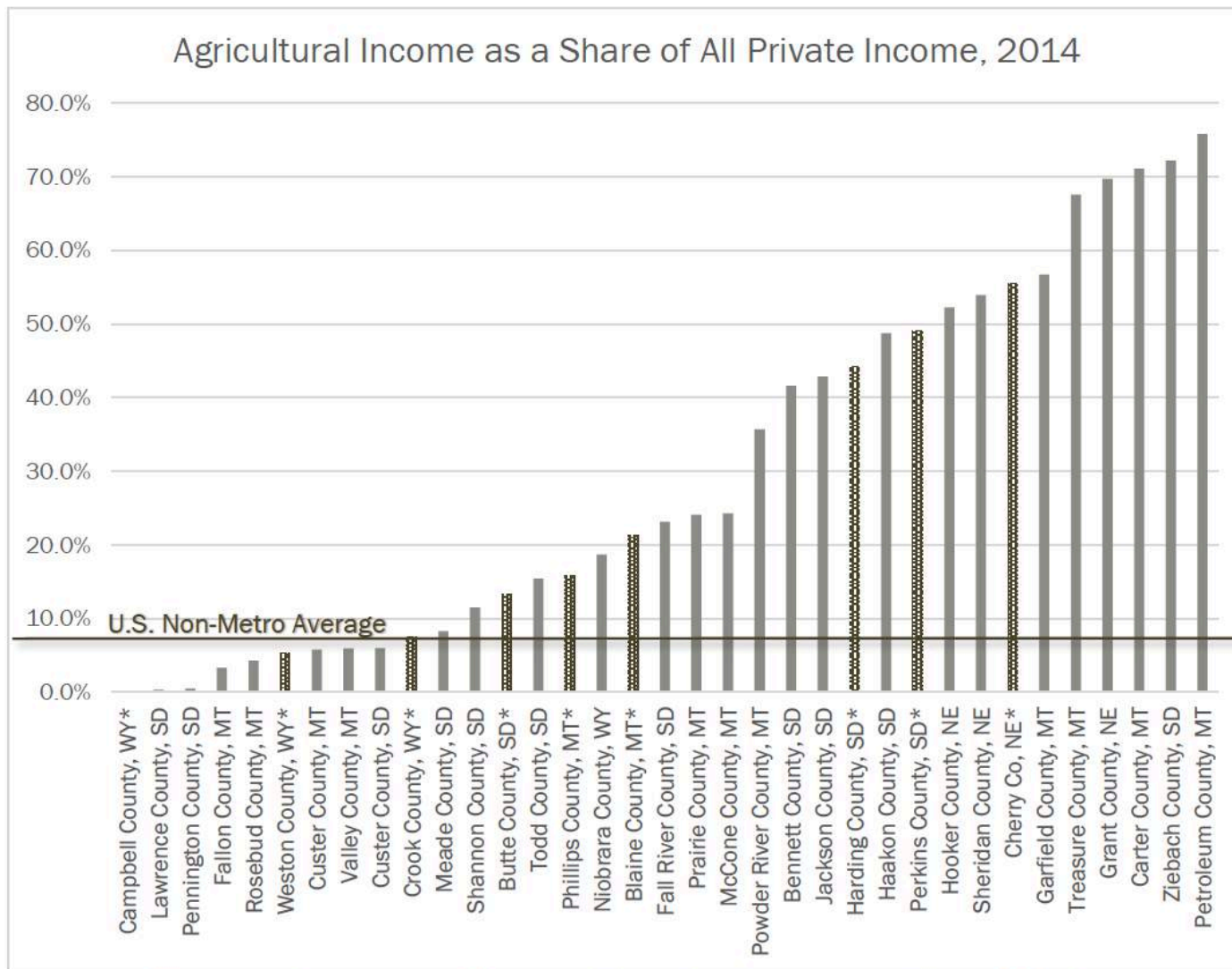


FIGURE 6. COUNTY AGRICULTURAL OPERATION OWNERSHIP PATTERNS



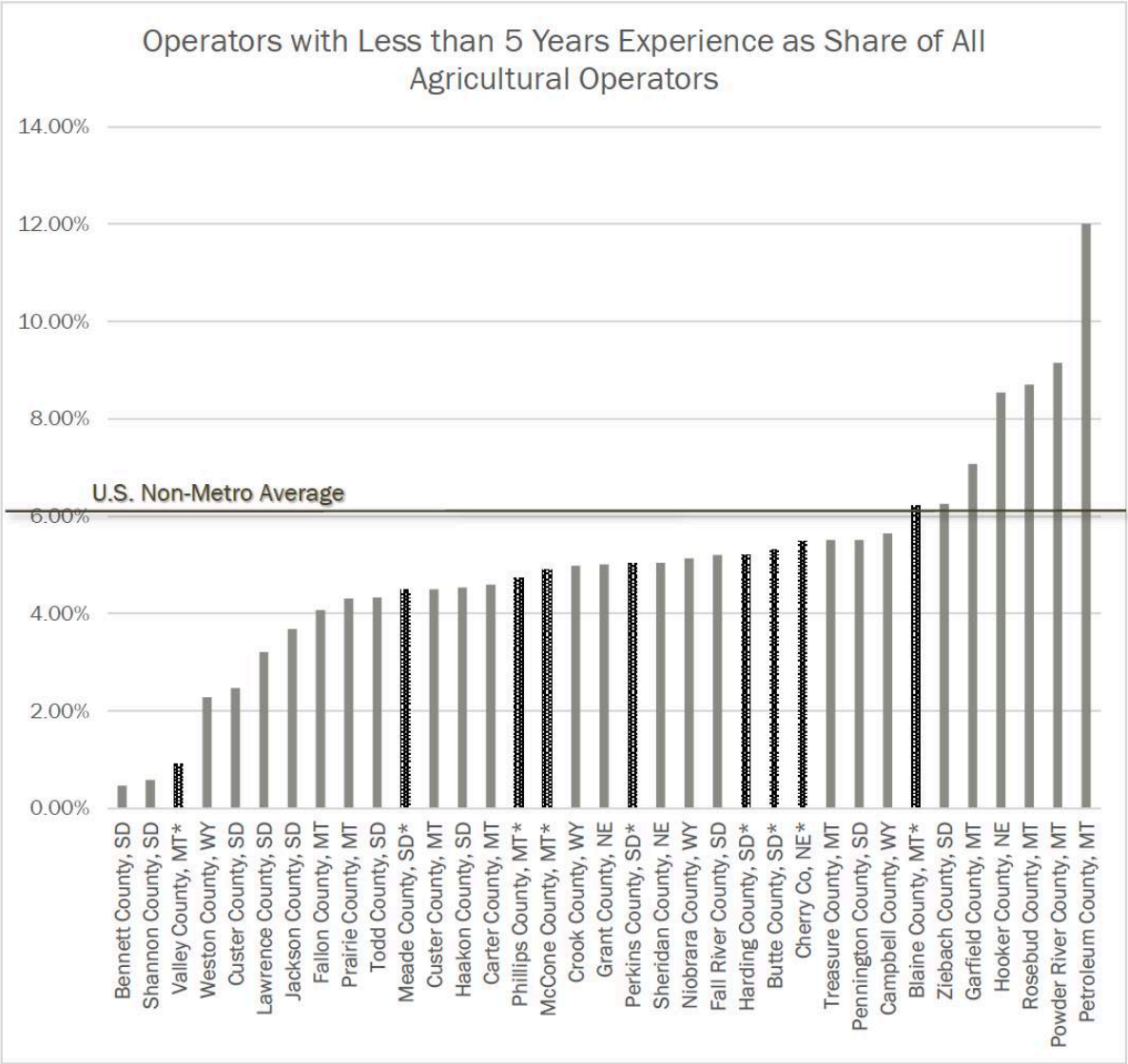
Source: USDA Agricultural Census, Table 8, Farm, Land in Farms, Value of Land and Buildings, and Land Use: 2012 and 2007. Accessed 4/2016.

How dependent is the local economy on agricultural income?



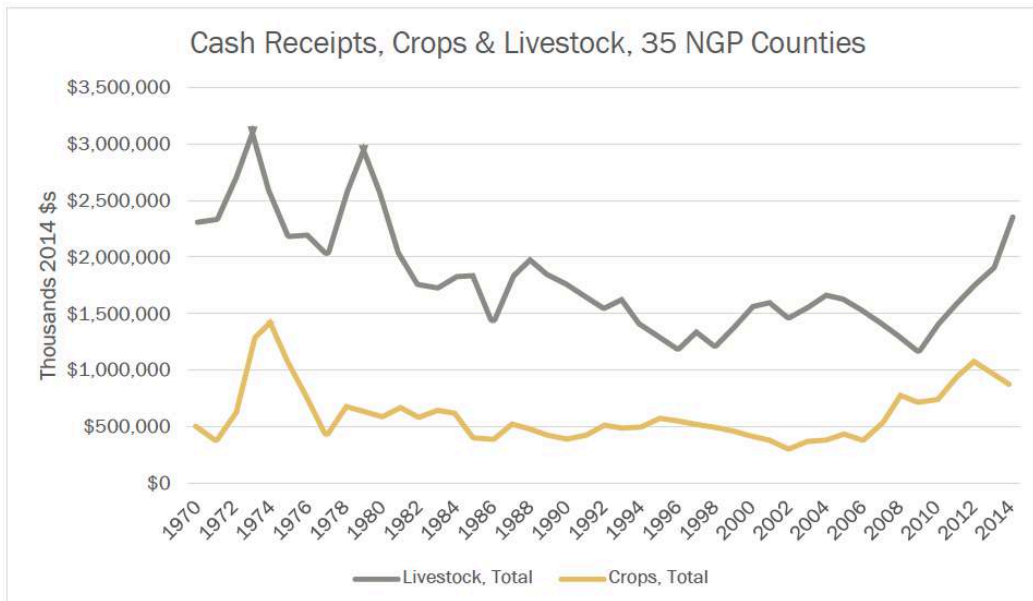
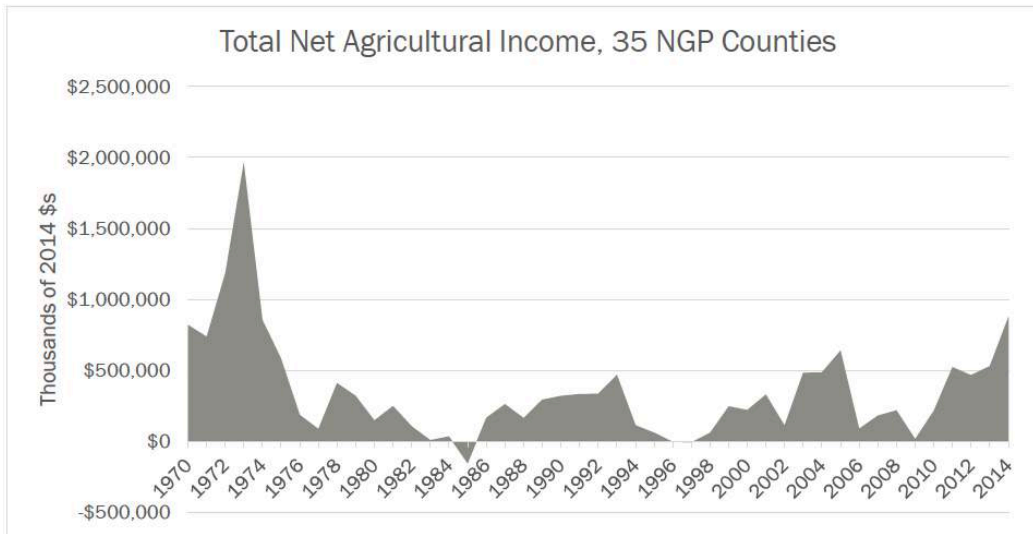
Source: US Bureau of Economic Analysis, Local Area Personal Income, Table CA45 Farm Income, Accessed 3/2016. *SRI Priority Counties marked in pattern.

Are there new producers in each county?



Source: USDA Census of Agriculture, 2012. *SRI Priority Counties marked in pattern.

What are long term trends in agricultural income?



Source: U.S. Department of Commerce, 2015. Bur. of Economic Analysis, Regional Economic Accounts, Table CA45.

How does agricultural income compare?

\$2.5

Billion

\$931

Billion


\$2.5B Farm Business Total Cash Receipts, 2016 (MT, WY, ND, NE, SD) ;
\$931B Dividends, Interest and Rent (TX, CA, NY)

Source: U.S. Department of Commerce, 2015 and 2016. Bur. of Economic Analysis, Regional Economic Accounts, Table CA45.



Key socioeconomic trends

- High dependence on agricultural income
- High barriers to entry for new producers
- Agricultural income variability
- “Under”-performing in national economy

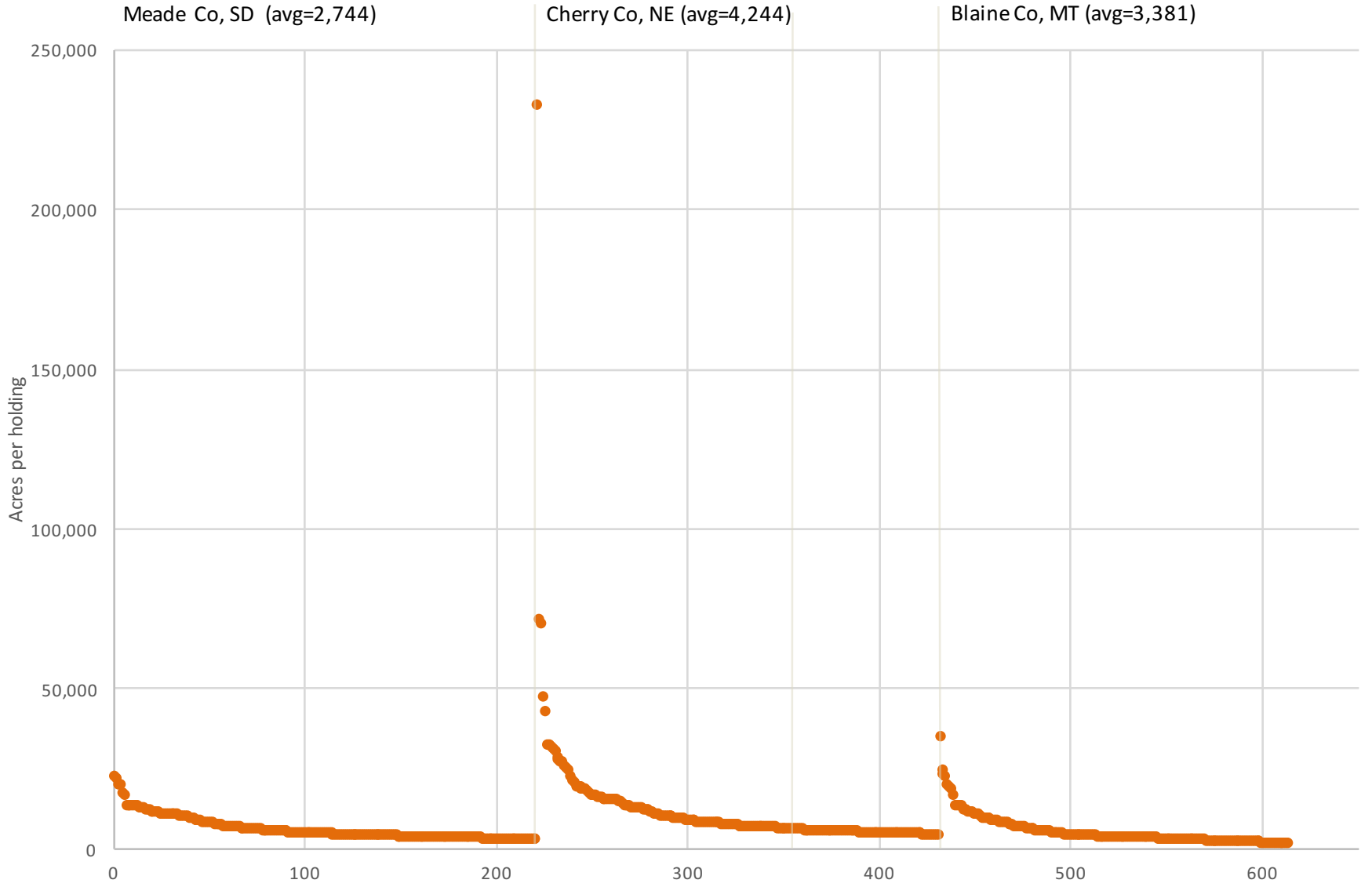


Land Ownership Trends

Land ownership trends

Attribute	Cherry Co., NE	Meade Co., SD	Butte Co., SD	Harding Co., SD	Perkins Co., SD
number farms (2012 ag census)	556	891	659	250	437
land in farms (2012 ag census)	3,609,327	2,032,553	1,134,603	1,467,327	1,630,875
average farm size (2012 ag census)*	6,637	2,281	1,722	5,869	3,732
Number of properties >320 ac.	820	680	N/A due to lack of cadastral/parcel data		
Total acreage in >320 holdings	2,434,176	1,333,674	N/A due to lack of cadastral/parcel data		
# properties >320 acres changing hands, 2011-2015	95	96	36	19	64
# acres changing hands, 2011-2015	246,662	152,424	58,812	42,734	110,708
Share of large** properties changing hands	12%	14%			
Share of acreage in large holdings changing hands	10%	11%			
Share of all private, non-urban land changing hands	6.8%	7.3%	4.9%	3.2%	7.3%
value of land sales	\$83,815,835	\$27,009,021	\$11,605,372	\$5,088,180	\$24,593,113
average value per acre (land only)	\$339.80	\$208.00	\$265.00	\$134.00	\$261.00
Ratio: land sales to # of farms	0.17	0.11	0.05	0.08	0.15
*private land, does not include public land					
**"large"=parcel >320 acres					

Distribution of Large Properties, 3 SRI Counties



Each Dot Represents One Property in the Cohort of Properties that is Above Average Size for All Holdings >320 Acres

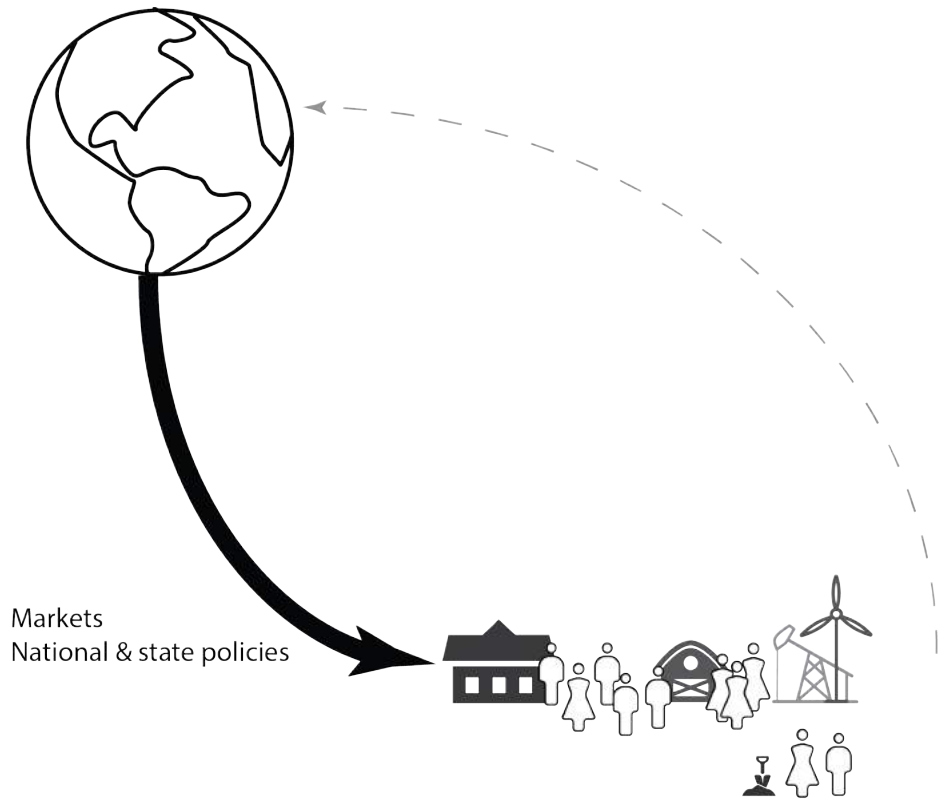
Outcomes for conservation

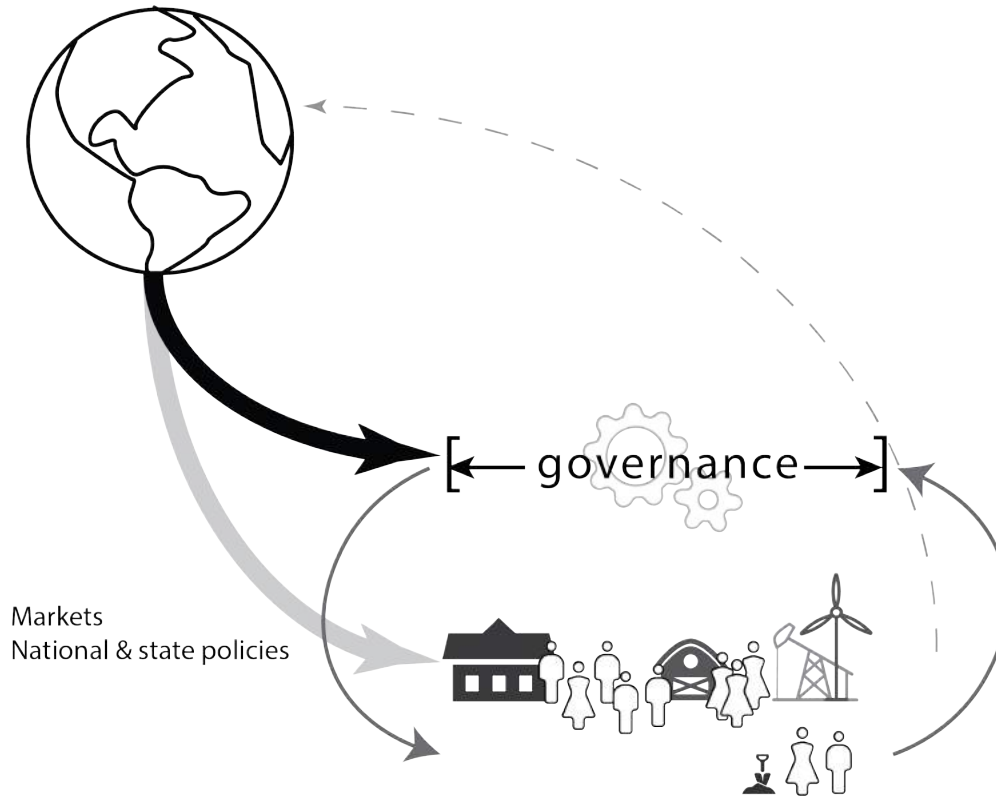
- **Conversion risk:** operators focus on local concerns, not at scale
- **Land values:** single biggest concern
 - Agglomeration poses risk to rural community resilience
 - Increased pressure on emerging ranchers could lead to more ***intensification*** &/or ***innovation***



Rethinking Partnership as Community Resilience







Local & regional institutions:

- Landowner groups
- Conservation districts
- Natural resource collaborative groups
- Ad hoc associations & working groups
- Planning boards
- Community development agencies



Ιμagine χρεδιτ: MT NIIP

agency and self-organization in response to change



Rethinking Old Roles



Emerging



Established



Transitioning

Strategic questions at hand...

How might we:



- **Direct capital** (human, financial, social) to resilient land uses?



- **Build and strengthen bridges** at multiple scales: family, community, region, beyond?



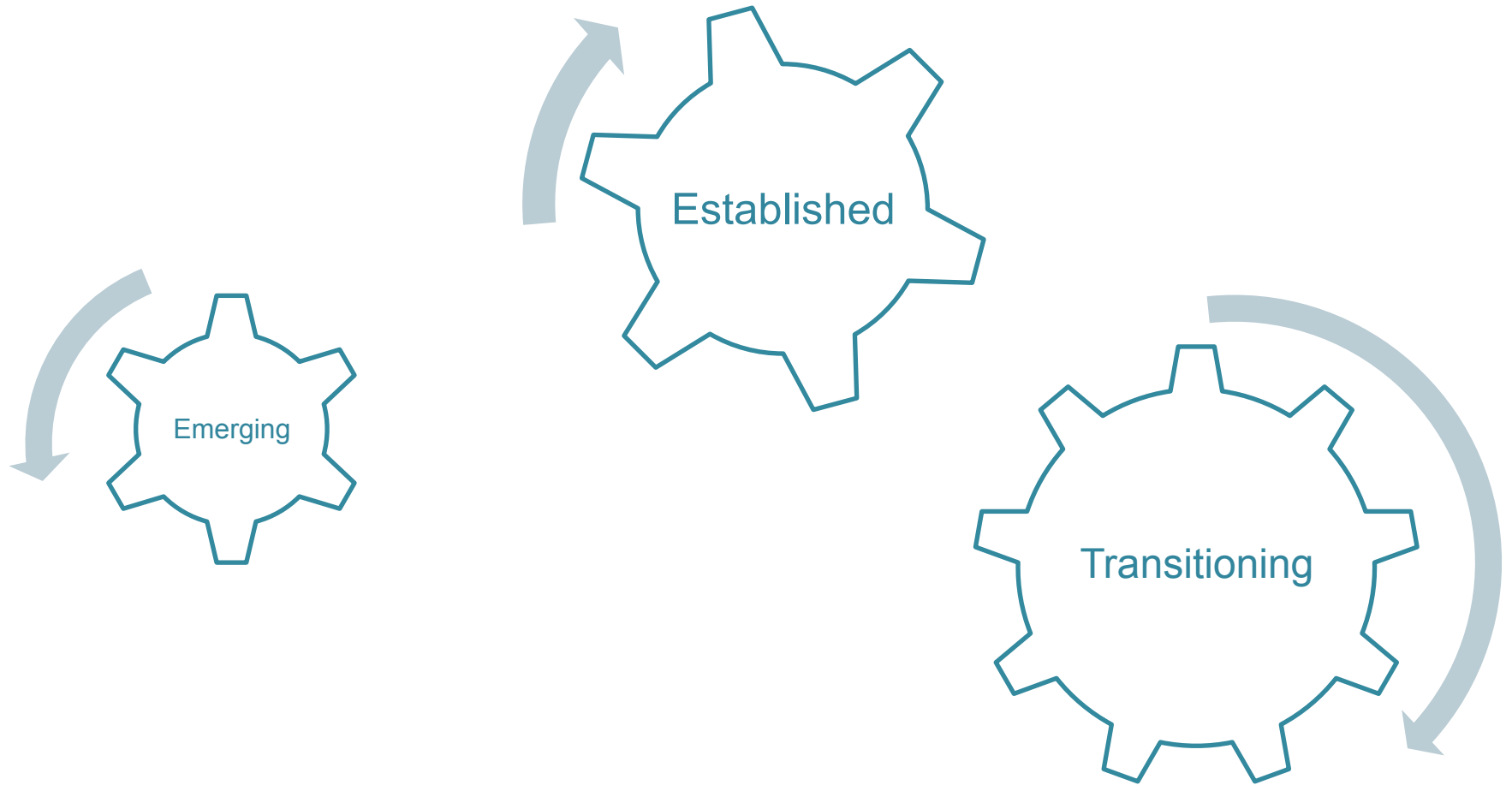
- **Lead to lasting informal institutions** that support a culture of interdependency and stewardship? Accelerate and improve inclusion of new private landowners?

Thanks & keep in touch!

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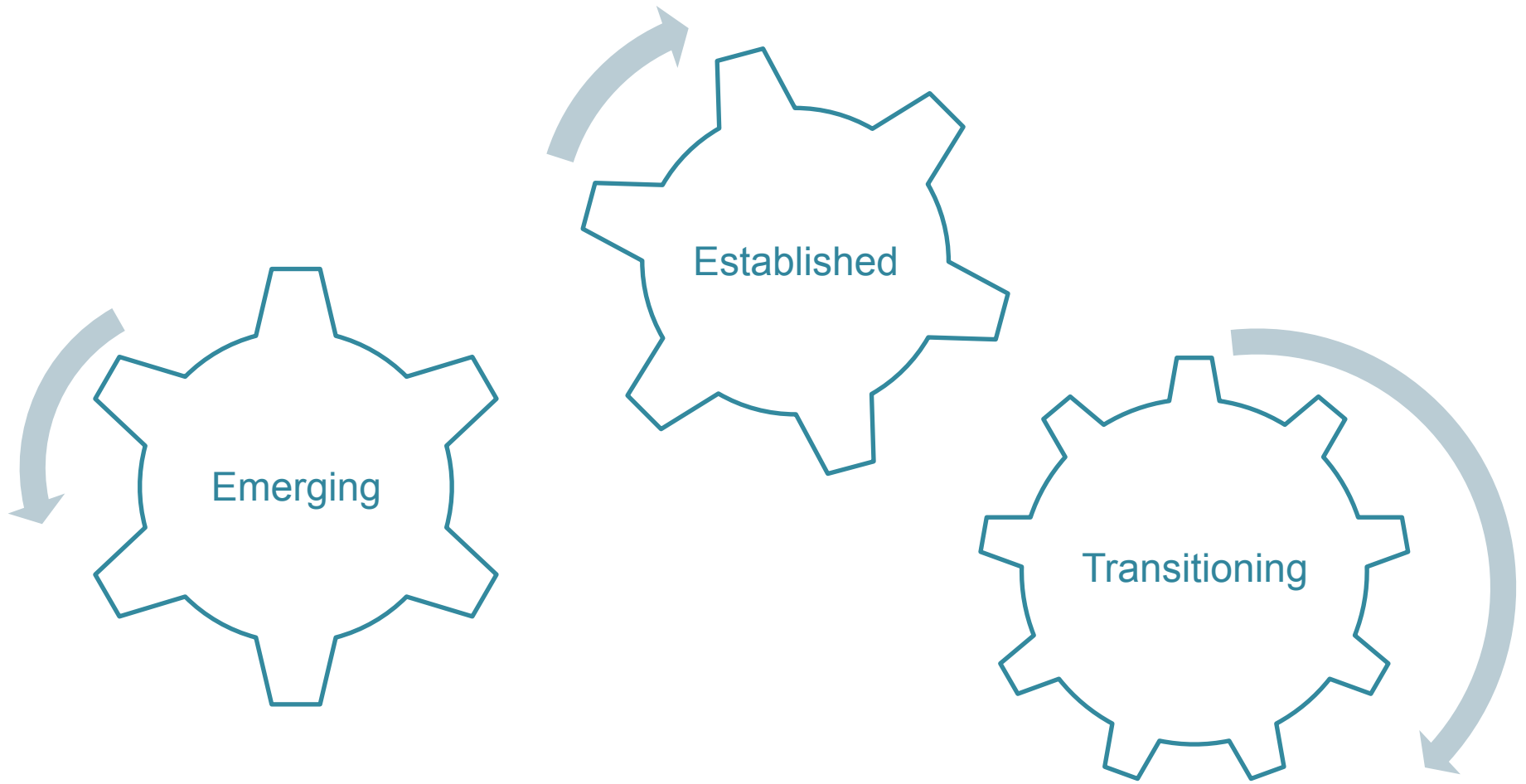
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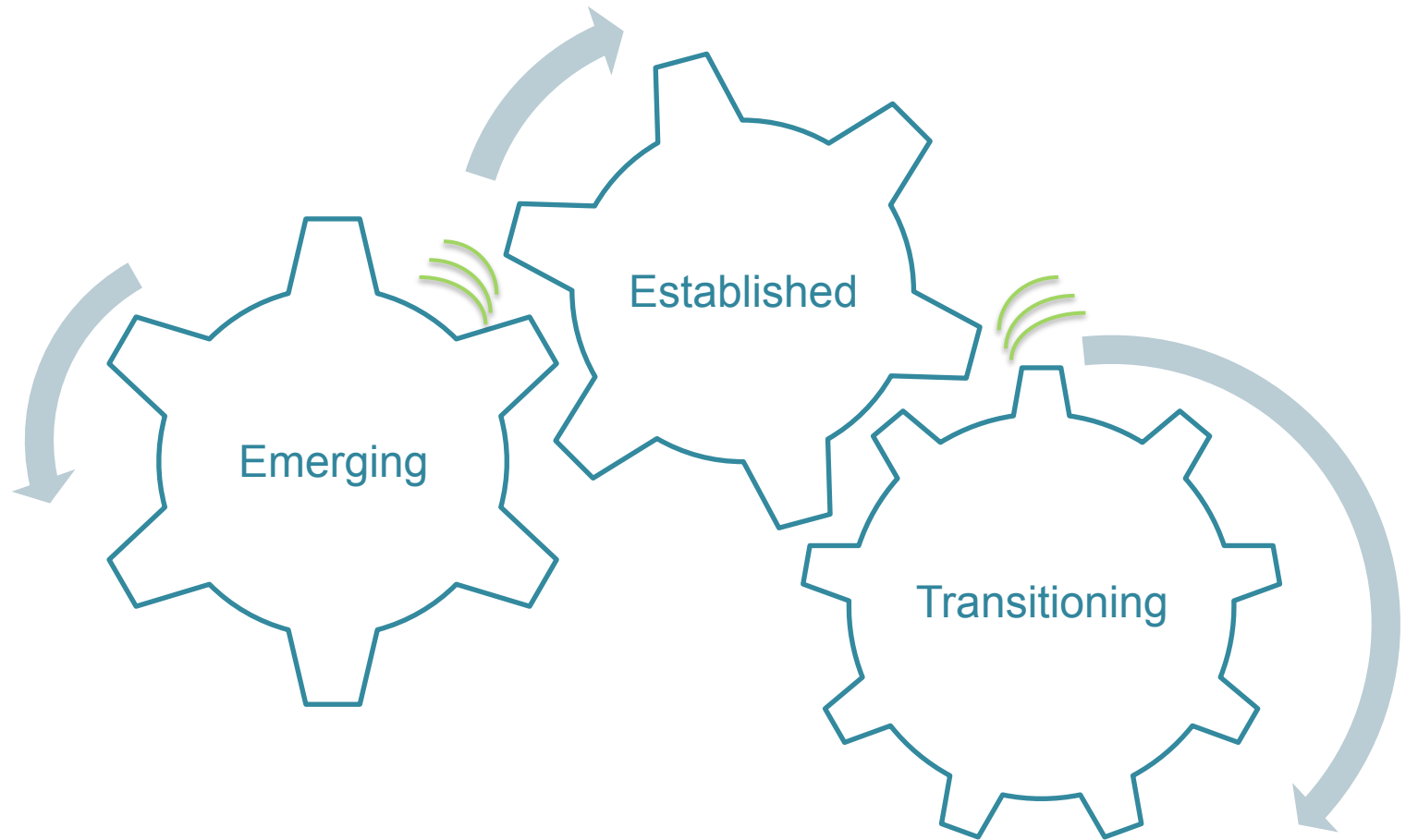
Conceptualizing the Intervention

... around ranch life cycle dynamics



Equalizing

.... across life cycles through sharing of capital and enhancing diversity and resilience of emerging operations



Connecting

.... across Ranch Generations (and types) – at family, community and regional scales; facilitated by a coalition of established ranchers and bridge organizations (e.g. WWF and partners)

Understanding human dimensions

**Resilient ranching
communities**



**Grasslands
conservation**



MSU approach

Focus | producers' perspective on *opportunities and challenges* in the contemporary policy & economic environment

Geography | areas with working grasslands in Nebraska, South Dakota, Montana

Goal | inform useful, productive engagement between conservation NGOs and working landowners

Approach | socioeconomic data analysis, land ownership data, interviews with landowners/local experts (56); policy experts (6)

Key Findings: Land Prices and Access

- Steep increases in grassland valuation, driven both by crop price boom and amenity pressure with local idiosyncrasies
- Emerging ranchers most exposed to increasing valuation; Volume of land available also an issue
- Increasing insecurity of leases and lease prices a major concern



Key Findings: Capital, Finance, and Subsidies

- Availability of finance not a concern, amount of finance is
- Debt-comfort is cultural, personal
- Finance and access a hurdle, not a deterrent, newly established ranchers demonstrate major determination and creativity
- Subsidy programs disproportionately favor larger operations



Key Findings: Generations and Community

- Transition is a shock that tests system resilience
- Retiring rancher choices are influential: time of retirement, profit v. family/community, etc.
- Concern about aging demographics and community assets
- Sense of alienation from policy makers and consumers



Community Resilience

Is **networked capacity** for robust, redundant and timely responses to shocks (economic or natural).

In ranching communities:

- Options for newcomers
- Land & property patterns
- Access to good info.
- Time & space to connect

Measuring is building!



Communities in Action Case Study



Photo credit Kris Smith

Est'd 2005 to unite diverse community leaders to promote quality of life in Richland County

Adapted MAPP process: 15-member steering committee with “action groups”

20 completed projects since 2005

Ongoing data collection and assessment

COMMUNITIES IN ACTION (CIA)

COMMUNITY GARDEN

Came out of Community Conference.

- Family with no garden space now has a garden.
- Seniors use the garden.
- Low-income housing residents.
- More community members exhibited produce at fair.

It's an opportunity for those without space to grow their own produce. So we tie that to the nutrition coalition. Fresh produce is more nutritious than store bought. Also, more cost effective.

Boys and Girls club rents spaces in the Community Garden. Interest is growing and is part of the summer camp curriculum.

24 plots are all being used.

Donated to Harvest for Seniors.

Kids want to learn more.

Recognize gaps.

Harvest for Seniors.

People who have gardens able to donate to seniors.

We organize pick-up and delivery of produce from people with extra from their gardens.

"Eating healthier costs less for them."

This program allows the satisfaction of giving for those that donate.

4H Club donates to this program as well.

"Through the senior coalition, we also do lifelines for seniors and medication set-ups."

Services are available that help keep seniors independent and in their homes instead of in nursing homes which are costly.

PROGRAMS AND SERVICES FOR SENIORS

"They have lots of programs that help teach the kids like the gardening, tutoring, music."

"I was able to go into their summer program. Each week was a different theme and I was able to lead a themed activity. Just really able to give them a lot of education in one compact area"-4H extension. It is a 7week program. All day "also teach healthy lifestyles, nutrition, physical fitness."

Started a backpack program for kids to take food home on the weekend.

Provides much needed childcare after school and during summer (camps) so parents can work.

Creates employment opportunities for high school kids.

Created Boys and Girls Club.

PARTNERSHIP FOR PROMISE

Articles in the paper on nutrition.

Facebook and Pinterest groups with many followers.

Education with Boys and Girls club.

Provide fruit at the runs.

Fundraisers for 11 years plus.

Provides money to cancer patients in area.

Established an endowment to help people into the future.

Provides transportation to Billings.

Diabetes management program.

Cancer Coalition.

NUTRITION COALITION

CHRONIC DISEASE COALITION

EDUCATION

BEST BEGINNINGS COALITION

Came out of an awareness of need for day care/child care access.

We now have six preschools in Richland County.

Provided education for preschool and day care providers.

Helped with preschool screening recently.

Do some home visiting. Parents as teachers.

Provide babysitter courses.

WALKING PATHS

"I don't think there would have been a tight put up to make it safer to cross Central without the walking path."

Paths are always in use.

Running clubs use paths.

Leadership classes have added amenities to the paths.

Paths give kids a safe path to school, parks and swimming pool.

"It covered a lot of open canal water, a drainage ditch, so it made it safer and more pleasing to the eye."

Bike lanes added to Holy.

ACTIVE RICHLAND COUNTY

Richland County Community Complex

The idea came about because we learned about the needs of the community through CIA.

Feasibility study completed which considers all of community's needs.

Building partnerships between many groups to make our community really special.

Different groups are coming together to support the complex.

"We have great stuff here, but lets make it better."

"Instead of fighting for everyone's dollar, we try to bring everyone together." "By working together we can make more happen."

HOUSING ACTION GROUP

Active years ago, but not so active now that the pressure is off.

KNOWLEDGE OF WHAT IS GOING ON IN COMMUNITY

People meet and learn about what others are doing and what they need at steering committee meetings, Action Group meetings and the community conferences.

Hear needs of community at community conference.

"I think this whole process has changed a lot of attitudes, in my personal opinion. When you are able to voice your concerns and needs and it gets heard. Especially when action is taken towards your want, its helpful to the community."

Hearing from those that don't usually contribute.

MORE COLLABORATION AMONG GROUPS IN THE COMMUNITY.

Critical incident and Stress Management Certificate available.

Mental health first aid certification available.

Partnerships with Chamber for wayfinding signs wouldn't have happened without this process.

Boys and Girls club collaboration with library.

Boys and Girls club now has an art camp through collaboration with local arts group.

INCREASED VOLUNTEERISM

Without volunteers, a lot of things wouldn't get done.

LOCAL ADVISORY COMMITTEE ON MENTAL HEALTH

Recognized some gaps in services in what Eastern Montana Clinic was able to provide.

Having discussions about mental health needs with representatives from the Sheriff's office, the hospital, churches etc is helpful in itself.

Identified a way to bill for services for people who might not otherwise be eligible for mental health services. More people are able to get services that would have been turned down before. This helps keep people out of the state system.

We now have mental health help for people in jail. We are able to provide services before they get out of jail. There is no gap in service. People get the help they need which reduces strain on other social public resources.

Stabilize families.

Received Bakken Behavioral Health grant.

FAITH BASED GROUP

"Churches came together and held community dinners in different places to show that we were welcoming to newcomers."

People got to know each other.

Shared helpful information such as how to insulate campers and who to call for help.

ENVIRONMENTAL RECYCLING RESOURCE GROUP

Started with water quality study.

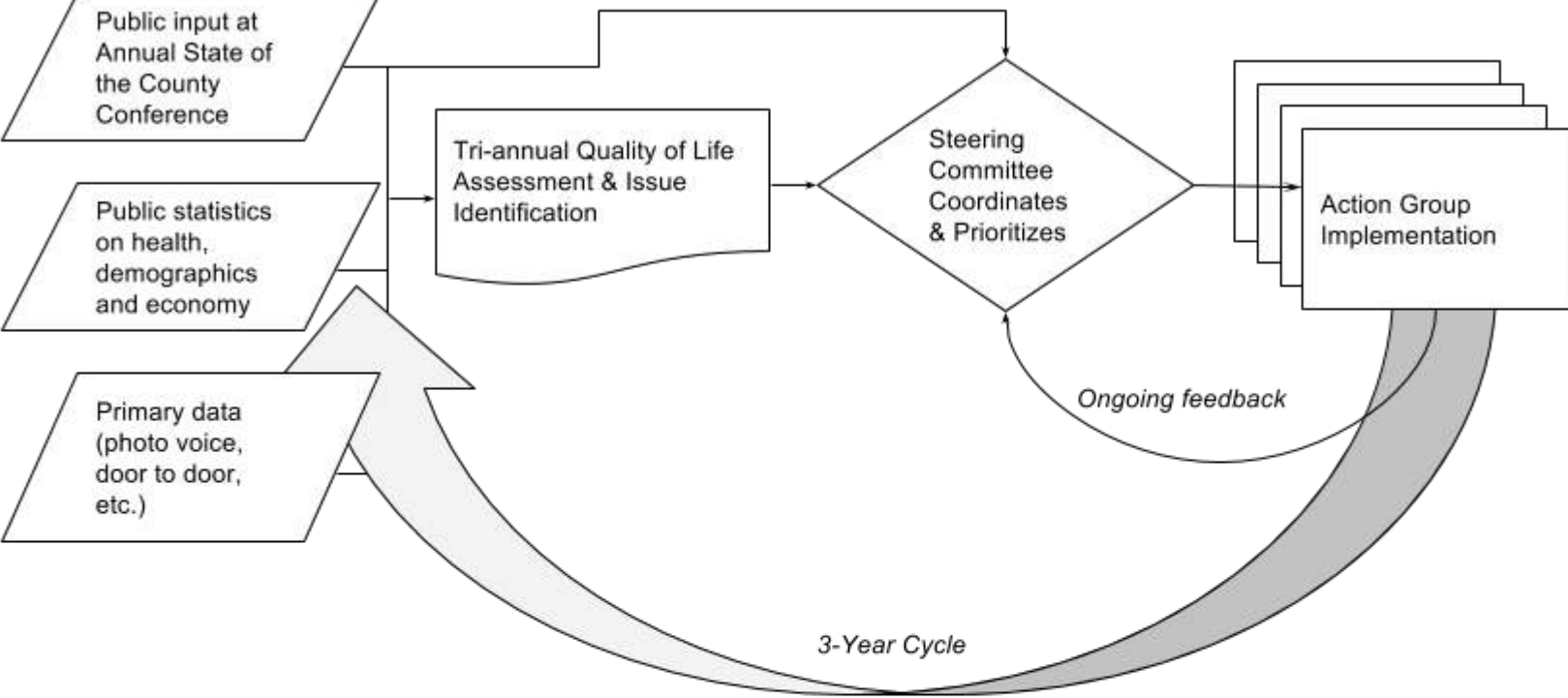
Helps with recycling cardboard, paper etc.

RICHLAND COUNTY TRANSPORTATION SYSTEM

Collaboration of several agencies who had their own separate buses.

Groups came together to receive funds from MDOT.

Our transportation system is a great benefit to the community. It started 9-10 years ago.



Recommendations

- Conduct an assessment of patterns of large ranch ownership (types of top 25 and quartiles) on an annual basis to track change
- As an outreach and community-building strategy, consider trialing a participatory resilience assessment approach merging the RA assessment method with focus groups and discussions around perceived community resilience; excellent venue for engaging student workers and volunteers
- Consider the benefits adding an index of county-level socio-economic variables to complement ecological monitoring, based on adapting social vulnerability models with modification to incorporate farm income data
- Use the IPCR framework to inform and seed conversations about community well-being and aspirations in focal areas

County land tenure analysis

- Meade Co, SD; Blaine Co, MT; Cherry County, NE
- Procure digital cadastral records
- Homogenize large agricultural land owners by street address and name
- Assess distribution and types among large ranches, using key informants (1 per county) with ranch real estate and local expertise



Interview approach and methods

56 unique interviews with academics, extension specialists, private and public loan officers, NRCS agents, industry professionals, ranchers, farmers and others across the NGP, including:

- 33 ranchers, mixed-operation ranchers, and 1 farmer.
 - 10 from Cherry County, NE focal area
 - 12 from Meade, Butte, Harding Counties, SD focal area
 - 12 from Valley, Phillips, Blaine Counties, MT focal area

Semi-structured interviews focused on constraints, challenges and opportunities

Outcomes for conservation

- **Conversion risk:** operators focus on local concerns, not at scale
- **Land values:** single biggest concern
 - Agglomeration poses risk to rural community resilience
 - Increased pressure on emerging ranchers could lead to more intensification



Next steps for WWF

- Develop human/community indicators to track annually
- Develop innovative financial tools and other means of directing capital to resilient land uses
- Support community-based stewardship efforts





WWF

Recent activities



Bird surveys and analysis



Capacity-building grants



Communications



Stewardship recognition and educational support



Engagement with industry and rancher-led organizations



Market stakeholder influence



Partner engagement

GRASSLANDS: VALUE & THREATS



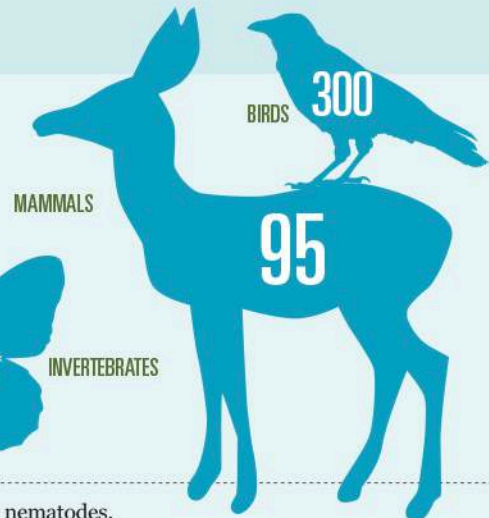
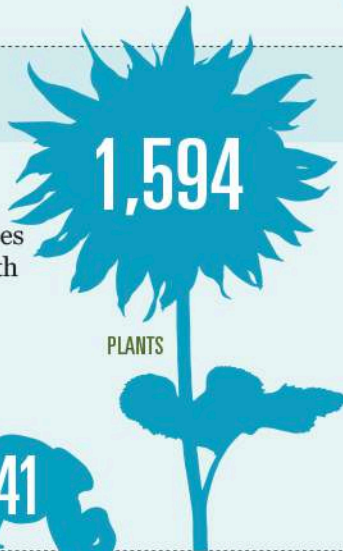
TRILLIONS
OF **GALLONS** OF
WATER ARE **FILTERED**
THROUGH THE NGP.

IT BECOMES DRINKING WATER FOR FAMILIES
IN ST. LOUIS, AND PROVIDES HEALTHY
FISHERIES IN THE GULF OF MEXICO.

EACH ACRE THAT REMAINS
UNPLOWED STORES THOUSANDS
OF GALLONS THAT WOULD
OTHERWISE BE **LOST.**

SPECIES RICHNESS

The Northern Great Plains are home to a broad array of species. From the microscope to the megafauna, all species play a vital role in the grasslands' health and continued well-being.



*A square yard of soil in the Northern Great Plains could contain as many as 110,000 arthropods and 5.4 million nematodes.



IN **2014** alone
1.4 MILLION ACRES
OF **GRASSLAND** WERE PLOWED UP.

THAT'S MORE
THAN



Today's goals