

MISSISSIPPI'S PROPOSED REFORESTATION INVESTMENT PROGRAM

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ABSTRACT. Lack of reforestation after harvest by nonindustrial, private forest (NIPF) landowners threatens the sustainability of Mississippi's \$11.4 billion forestry and forest products industry. One reason NIPF landowners do not reforest is the absence of available credit to finance reforestation investments. The Mississippi Reforestation Investment Program (MRIP) is designed to address this credit market failure. Unique features of MRIP include: 1) 100% debt financing of the total cost of reforestation, 2) competitive rate of interest, 3) repayment provisions tied to timber harvests, 4) 35-year loan maturity, 5) insurance coverage of most downside risks, 6) linkage to Mississippi's new 50 % investment tax credit, and 6) the collateral employed to secure the loan. Marginal analyses of cash flows from an MRIP-financed reforestation investment versus doing nothing reveal the program to be most attractive to qualifying NIPF landowners.

KEYWORDS. Reforestation, bond, investment, loan, private landowners.

Each year in Mississippi about 100,000 acres of nonindustrial, private forest (NIPF) lands are not being properly regenerated after timber harvest. One reason NIPF landowners do not reforest is the lack of funds and the absence of long-term credit to finance reforestation investments. The proposed Mississippi Reforestation Investment Program (MRIP) is designed to address this credit market failure. An inspiration of the Mississippi Special Task Force for Economic Development Planning, the program outlined in this paper was developed in part and refined by the authors from the input received from two sources: 1) In focus group meetings with key decision makers and NIPF landowners; and 2) From telephone interviews of 829 NIPF landowners who had (427) and had not (402) reforested following a timber harvest in the last five years'.

THE BASIC CONCEPT

The basic concept is for the State of Mississippi to sell long term, zero-coupon municipal bonds and use the proceeds from the sale of the bonds to finance reforestation investments on suitable NIPF lands. Qualifying landowners would receive a loan covering up to 100% of the cost of reforesting a property. Principal and interest on the loan would be repaid from the revenue generated from future timber sales resulting from the reforestation investment.

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ZERO-COUPON MUNICIPAL BONDS

A zero-coupon municipal bond is a debt obligation sold by a state, territory, municipality, city, school district, public authority or local government whose interest is reinvested until the bond reaches maturity. That is, with a zero-coupon bond, no periodic interest payments are made. Rather, an investor receives a fixed lump sum at maturity that exceeds the principal amount. Interest earned is represented by the difference between the lump sum at maturity and the purchase price. Historically, municipal bonds have been exempted from federal income taxes and, frequently, from state and local taxes. Following the Tax Reform Act of 1986, private purpose municipal bonds (e.g., MRIP) are taxable at the federal level; public purpose municipal bonds remain tax exempt.

PROCEDURES

The procedures used in developing the MRIP are outlined below:

- I. Worked with Mississippi Special Task Force for Economic Development Planning to tentatively describe a forestry initiative.
- II. Delineated the need for and potential benefits and costs of such a program.
- III. Shared the information from steps I and II with key decision-makers in a facilitated focus group session, obtained their feedback and made adjustments to the proposed program. Key decision-makers included representatives from the following stakeholders: Mississippi Legislature, Mississippi Forestry Commission, Mississippi Treasury Department, Mississippi Forestry Association, Mississippi Department of Economic and Community Development, Mississippi Institutions of Higher Learning, and Mississippi State University.
- IV. Explained the proposed program to NIPF focus groups and assessed their interest.
- V. Evaluated administrative functions and organization structure.
- VI. Added related questions to a survey being conducted for another research project "Behavior and Attitudes of NIPF Landowners Concerning Reforestation of Harvested Timberlands in Mississippi." VII. Summarized findings from Steps I - VI and formulated a Model Reforestation Bond Program.

DECISION-MAKERS FOCUS GROUP FEEDBACK

A tentative description of the initiative along with a preliminary financial analysis was shared with key decision-makers in a focus group meeting in Jackson, MS, the State Capitol. Input from the focus group participants stimulated several changes to the initial proposal. The revised proposal featured the following central themes:

Source of Funds

The State of Mississippi would sell zero-coupon bonds to raise monies for the program.

General Loan Provisions

Monies raised would then be loaned to NIPF landowners as follows:

Reforestation - To pay the total cost of reforestation (i.e., site preparation and planting) of suitable pine sites.

Additional loan - Up to \$25/acre/year for 10 years would be available as an option. Use of these funds would be entirely at the landowner's discretion.

Rate of interest - Equal to that paid by the State on the bond issue plus a small charge for loan administration (e.g., 7 - 7.5%).

Payment Schedule

Payment of principal and interest would be postponed until the trees are harvested.

Reforestation loan only - A minimum payment of 50 % of net sales revenue would be required at all thinnings.

Reforestation loan and additional loan - A minimum payment of 75 % of net sales revenue would be required at all thinnings.

Payoff - Loans could be repaid in whole or in part at any time;

Maturity -- All loans would have to be repaid in full by the end of 35 years or at final harvest of the stand, whichever occurs first.

Collateral

Underlying land - Borrowers would be required to put up the reforested land as collateral for the loan(s).

Existing first mortgage - The State would take a second mortgage provided there is sufficient left over value to provide security for the loan(s).

Appraisal - Landowner's would be required to provide an appraisal of the property.

Eligibility

Residents - Only Mississippi NIPF residents would be eligible.

Non-residents - Non-residents would be eligible only if they are co-owners with a Mississippi resident.

Co-ownership - At least one co-owner would have to be a Mississippi resident at the initiation of a loan.

Minimum Acreage

Ten acres would be the minimum acreage to be reforested.

Lifetime Loan Cap

The maximum amount any forest landowner could borrow during his/her lifetime would be \$50,000.

Insurance

Borrowers would be required to carry a commercial insurance policy to cover the risks of seedling mortality, fire, wind and ice storms, insects and diseases, and theft.

Other State and Federal Reforestation Incentive Programs

MRIP could only be used in conjunction with the Mississippi Reforestation Tax Credit Program.

Program Administration

The Mississippi Forestry Commission would provide technical assistance to borrowers in developing reforestation plans, processing loan applications and making sure the plans are followed. The Mississippi Department of Economic and Community Development would handle the record keeping and those financial activities related to making the loans.

INPUT FROM NIPF LANDOWNER FOCUS GROUPS

Focus group theory and practice holds that the more things people have in common, the less reticent they feel about speaking up and the more likely they are to participate in a group discussion. Thus, in the four NIPF landowner focus group sessions that we conducted, participants at each individual session were selected on the basis of some common characteristic(s). Conversely, we also wanted to tap into a cross section of views from the broad spectrum of persons that comprise the NIPF landowner category. Thus, the makeup of the focus groups was heterogeneous across groups, but homogeneous within each group (Table 1).

Table 1. Location, Number of Participants and Distinguishing Characteristics of NIPF Focus Groups.

Location	No.	Distinguishing Characteristics
Alcorn State University (SW MS)	8	African-American Landowners
Hattiesburg (SE MS)	5	“Under-served” Landowners (Non-participants in government programs)
Raymond (Central MS)	8	Absentee landowners from Jackson metro area (Timber is often a secondary objective)
Oxford (North MS)	11	“Tree farmers” (Timber is a primary objective)

Input received in the landowner focus group sessions has been summarized and is presented below as “Salient Themes.”

In general, feelings about participating in reforestation programs sponsored by the government:

- Lack of trust of the government by minority and under-served landowners.
- Absentee and tree farmers: Would give opportunities to those landowners who don’t otherwise have the opportunity.
- Fear among owners of small-tracts that programs like MRIP are a ploy by Government to cut them from existing social welfare programs.

Borrowing money for reforestation:

- MRIP will be attractive so long as there is a return on investment that will beat the lending rate.
- Landowners were concerned -- heirs will have responsibility of paying off the loan.

Interest in borrowing money for total cost of reforestation under MRIP?

- Vast majority of minority landowners said “NO”- were cautious about borrowing money.
- Under-served landowners would be interested and suggested an option of letting

- people make payments annually or monthly to avoid the accumulation of interest.
- Absentee landowners showed no interest, unless the interest rate is reduced to 2%, and if standing trees serve as collateral.
- Majority of tree farmers would borrow money under MRJP.

Interest in borrowing money for total cost of reforestation and additional loan of up to \$25/acre/year for 10 years?

- Minority, under-served, and absentee landowners were not interested in an additional loan, questioning if it is worthy for small-tract landowners. They do not want to add debt burden to their heirs!
- Among tree farmers, several participants were interested in an additional loan; but most were not. Interest hinged on the lending rate in comparison to the rates of return available on alternative investments.

Land to serve as collateral for the loan:

- Independently and on their own. all four landowner groups agreed by consensus that insured standing trees should be taken as collateral in lieu of the land.

Insurance for the new pine stand against all unforeseen calamities:

Landowners suggested that:

- Insurance cover 100% of the loan (i.e., no deductible);
- The state should develop a program that will work like a group policy;
- The premium be a fixed cost in the program established on the front end;
- The value of the loan should be insured, not the value of the timber;
- Self insurance would probably be a better way to go than relying on commercial carriers.

What do you like/like most about MRIP?

- MRIP will assist a diverse group of landowners, who would not otherwise have the opportunity, to put their idle forest land into production.
- The fact that they will take a second mortgage.
- Loan payments will be tied to timber harvests.
- MRIP might entice young people or heirs to plant cutover sites.
- Landowner does not incur out-of-pocket expenses as compared to cost-share programs.

What do you not like/what is your biggest concern about MRIP?

- Minority and under-served landowners:
 - Will it get off the ground and will it be there for us?
 - Compound interest on the loan.
 - Fear that the State will take over property. if the landowner defaults on the loan.
 - Concern about tenancy in common and the lack of clear titles of many African-American landowners.
- Absentee landowners:
 - Do not like the government getting in control of their land and money.
 - Fear of escalating insurance rates.
 - Land, not trees, serving as collateral.
- Tree farmers:
 - Concerned about the availability of insurance and its cost.

What is your overall assessment of the proposed MRIP?

- Needs a lot more efforts from all stakeholders to put it into place.

- Are there are other ways to regenerate funds for MRIP?
- Need to conduct cash flows analysis with different scenarios that include site indices and after-tax calculations.

SURVEY RESULTS

Concurrently with this study, the senior author was involved in a telephone survey examining the “Behavior and Attitudes of NIPF Landowners Concerning Reforestation of Harvested Timberlands in Mississippi.” The opportunity presented itself to insert two questions specific to MRIP into those interviews. The interviewees were NIPF landowners who had and not regenerated their timberland following a final harvest within the last 5 years. There were 427 regenerators and 402 non-regenerators in the sample. The two MRIP specific questions and a summary of interview responses follows.

Question Number 1. Suppose the State of Mississippi would loan you money at a competitive rate of interest (e.g., 7.0 - 7.5%), and you would not have to repay the loan until the trees are harvested, and you had to put up the reforested land as collateral for the loan; would you be interested in borrowing the money to pay the total cost of reforesting the tract, assuming it would be profitable in the long term? “Yes” responses among regenerators (36.8 %) differed significantly from non-regenerators (28.1 %) at $\alpha = 0.05$. “Yes” among regenerators was positively influenced by income, age and gender (39.9 % of the males versus 23.5 % of the females). Size of holding, race and education did not significantly influence a “Yes” response among regenerators.

“Yes” responses among non-regenerators was positively influenced by gender (31.0 % of the males versus 20.0 % of the females). race (40.4 % of blacks versus 26.6 % of whites), age and level of education. Size of holding and income did not significantly influence a “Yes” response among non-regenerators.

Question Number 2. Would you be interested in receiving the original reforestation loan and an additional loan of \$25.00 per acre per year for 10 years, if the additional funds could be used for anything you choose?

Adding the additional loan of \$25/acre/year for 10 years increased the number of “Yes” responses over the reforestation loan only by 6.1 % (36.8 % to 42.0 %) among regenerators, by 8.2% (28.1 % to 36.3 %) among non-regenerators for a combined total increase of 7.1 % (32.6 % to 39.7%). The largest increase in level of interest, 12.8 %, came from black non-regenerators (versus 7.7 % among white non-regenerators).

Prevalent reasons expressed by landowners who responded “NO” to Questions 1 & 2 in the telephone survey have been categorized and are summarized as follows:

1. Long term nature of the investment:
 - They wouldn’t be alive when the investment matures;
 - Are too old;
 - Are retired or ready to retire;
 - Do not want to tie the property up for many years; and etc.

2. Interest:
 - Too long for interest to compound;
 - Don't like to pay interest to anybody;
 - Interest would eat up your profit; and etc.
3. Collateral:
 - Not interested in putting land up as collateral;
 - Too risky and might lose land;
 - "I do not want to put up my place for anything;" and etc.
4. Revulsion to debt:
 - Scared of debt;
 - Not interested in going into debt or borrowing money period;
 - Would have to be repaid/would like to leave it to my children; and etc.
5. Trust in government:
 - Rather handle it on my own;
 - Do not believe the government and would rather pay as we go;
 - Government programs have too many strings attached; and etc.

WILL IT WORK FINANCIALLY?

In response to requests from the landowner focus groups, we analyzed the marginal cash flows from a series of bond-financed reforestation investments in relation to doing nothing on both a before- and after-tax basis. Three levels of soil productivity as measured by site index (SI) and three rates of interest were examined to simulate a range of possible conditions. Site index is the average height of dominant trees in a stand at a specified base age (Helms 1998). Customarily, in the South the base age for natural stands of pine is 50 years, while 25 is the usual base age for plantations. We report both. Thus, a site of 93170 means that the dominant trees will average 93 feet tall at 50 years old or 70 feet tall at 25 years old. The three soil productivity classes for loblolly pine examined were: low (SI 67/50), average (SI 80/60) and high (SI 93/70). Discount rates were 6 %, 8 %, and 10 % before taxes, which equates to 4.10 %, 5.47 % and 6.84 % after taxes, respectively. Average cost of site preparation and hand planting of 650 seedlings of pine was assumed to be \$155.00 per acre.

Cost of self-insurance by the State of Mississippi was added to the reforestation investment to protect the property against seedling mortality, fire, wind and ice storm, insect and disease, and theft losses. The one time, up front insurance premium was based on a quote from an experienced commercial carrier -- excluding their profit margin.

The analysis was conducted using WINYIELD, a forest growth and yield model useful for estimating the investment returns on pine plantations in the South. The analysis was done on a "nominal basis," which means that 3 % inflation was included over the investment period (35 years). It was assumed that funds for the total cost of site preparation and planting would be loaned to the landowner at the three different interest rates. Standing timber price assumptions for pine products were: pine sawtimber at \$415.50/MBF, Doyle; pine chip-n-saw at \$90.00/cord; and pine pulpwood at \$28.00/cord. At ages 15 and 25 the standing pine trees were thinned, and at age 35 the entire tract was harvested. The landowners' marginal income tax rate and capital gains tax rate were assumed to be 28 % and 20 %, respectively. The financial performance

measure used was Net Present Value, which is the present value of discounted revenues minus the present value of discounted costs (Gunter and Haney 1984).

Table 2 illustrates an example of the marginal analysis of discounted cash flows from a bond-financed reforestation investment with loblolly pine versus doing nothing, for the average or mid-range situation, site index 80160, per acre basis, before and after state and federal taxes, at interest rates of 8 % before taxes and 5.47 % after taxes.

Marginal net present values, after taxes, for the three site indexes and interest rates are summarized in Table 3. The large positive values clearly indicate that returns are quite attractive across a broad range of soil productivity and lending rates. This is due in large measure to the use of financial leverage coupled with state and federal tax incentive packages. Further sensitivity analyses revealed that the profitability of the reforestation investment is of such magnitude that it can withstand substantial downside stumpage market risk (i.e., a 50 % reduction in current timber prices) even on poor sites at fairly high rates of interest. It appears likely that MRIP could generate significant wealth for landowners at no net cost to the State.

Table 3. Marginal Net Present Values, After Taxes, for a Bond Financed Reforestation Investment vs Doing Nothing. Per Acre Basis, for Low, Average and High Soil Productivity in Mississippi.

Site Index*	Interest Rate, After-Tax		
	4.10%	5.47%	6.84%
Low(67/50)	\$1,157.46	\$699.30	\$356.22
Average(80/60)	\$1,733.78	\$1,059.57	\$603.35
High (93/70)	\$2,687.70	\$1,677.09	\$940.42

* 50 year basis / 25 year basis

Table 2. Marginal Analysis of Cash Flows from a Bond-Financed Reforestation Investment vs Doing Nothing, Before and After State and Federal Taxes, Per acre Basis, Interest Rates are 8% Before Taxes and 5.47% After Taxes^a, Inflation Rate = 3%, and Site Index = 80 @ 50 years / 60 @ 25 years.

Item	Total Principal & Interest (\$)	Expense (\$)	Revenue (\$)	Cash - Flows, Before-tax (\$)	Present Value, Before-tax @ 8%	Amortization (\$)		Tax Liability or Benefit (\$)		Cash Flows, After-tax (\$)	Present Value, After-tax @ 5.47%
						FED	MS	FED	MS		
0 Site Prep & Plant - Pine		-155.00									
0 S P & P - Do Nothing		0.00									
0 Marginal S P & P		-155.00		-155.00	-155.00					-155.00	-155.00
0 Insurance Premium		-40.00		-40.00	-40.00			11.20 ^b	1.44	-27.36 ^c	-27.36
0 Reforestation Loan	195.00		195.00	195.00	195.00			0.00	0.00	195.00	195.00
1 0% Fed. Tax Credit								15.50	0.00	15.50	14.70
1 30% MSRTC								0.00	77.50	77.50	73.48
1 Amortization (1/14)						10.52 ^d	0.00	2.95	0.00	2.95	2.80
2 Amortization (1/7)						21.04	0.00	5.89	0.00	5.89	5.30
3 ~						21.04	0.00	5.89	0.00	5.89	5.02
4 ~						21.04	0.00	5.89	0.00	5.89	4.76
5 ~						21.04	0.00	5.89	0.00	5.89	4.51
6 ~						21.04	0.00	5.89	0.00	5.89	4.28
7 ~						21.04	0.00	5.89	0.00	5.89	4.06
8 Amortization (1/14)						10.52	0.00	2.95	0.00	2.95	1.93
15 Thinning Revenue			96.01	96.01	30.27			-19.20 ^e	-3.46	73.35	33.00
15 Loan Payment & Interest	554.01	-48.00	-48.00	-48.00	-15.13			13.44	1.73	-32.83	-14.77
25 Thinning Revenue			664.82	664.82	97.08			-132.06	-23.93	507.93	134.15
25 Loan Payment & Interest	1041.64	-332.41	-332.41	-332.41	-48.54			93.07	11.97	-227.37	-60.05
35 Final Harvest Price			9270.61								
35 Final Harvest-Do Nothing			-842.05								
35 Marginal Revenue			8,428.56	8,428.56	570.06			-1685.71	-303.43	6439.42	998.47
35 Loan Pay-off	1462.92	-195.00		-195.00	-13.15					-195.00	30.24
Principal											
Interest		-1267.92		-1267.92	-85.76			355.02	45.65	-867.26	-134.47
					NPVbt^f					NPVat^g	=\$1,059.57

^a $i_{at} = i_{bt} [1 - (i_{us} + (1 - i_{us}))]$;
 Where: i_{at} = Interest rate, after-tax; i_{bt} = Interest rate, before-tax; i_{us} = Federal tax rate; T_{ms} = State tax rate.
 $i_{bt} = 0.08 [1 - (0.28 + (0.05 (1 - 0.28)))] = 0.08 [1 - (0.28 + (0.05(0.72)))] = 0.08 [1 - (0.28 + (0.036))] = 0.08 [1 - 0.316] = 0.08 [0.684] = 5.47%$.
^b Tax-benefit to be charged against other income : T_{us} (insurance premium) = 0.28(\$40.00) = \$11.20.
^c Column 10 = Column 6 + Column 9.
^d $1/14 (0.95)(\text{Amortizable basis}) = 1/14(0.95) (\$155) = \$10.52$; ^e (taxable capital gains income) = (0.20)(\\$96.01) = \$ -19.20.
^f NPVbt = Net Present Value, Before-tax; ^g NPVat = Net Present Value, After-tax.

THE RECOMMENDED MODEL MISSISSIPPI REFORESTATION INVESTMENT PROGRAM

As the final outcome of the focus group meetings, the telephone survey, and our own analysis, we recommend that MRIP take the following form:

Source of Funds

Funds to finance the program would be raised by the State of Mississippi through the sale of bonds. Since the State has a good credit rating, the rate of interest payable on the bonds should be a favorable one. Additionally, the State may enter into agreements with other private (e.g., forest products or energy companies) or governmental organizations and may accept contributions, gifts or grants from any source to carry out the duties, functions and the powers of MRIP.

We suggest that the State and its agents promote MRIP and explore funding from the energy companies. The energy companies could receive carbon sequestration credits -- to offset their greenhouse gas emissions -- for the trees planted with the funds they provide, plus interest monies from long term bonds.

Reforestation Loan

The reforestation loan monies raised from the bond issue would be used to fund up to 100% of the cost of reforestation (i.e., site preparation and planting) of suitable pine sites. The inclusion of old fields along with cut-over pine sites is highly recommended. Old fields cost less to plant, have higher yields and the trees planted thereon incrementally sequester more carbon than they do on cut-over sites.

The additional loan of \$25 per acre per year for 10 years should be dropped from the program. It only increased the "Yes" responses by 7.1 %; it takes away monies from a given pool of funds that otherwise would go directly to reforestation; it has no value to external funding sources; and in reality it is a consumer loan.

Rate of Interest

The rate of interest charged on the reforestation loan would be equal to that paid by the State on the bond issue plus a small charge for loan administration. The actual lending rate should be very competitive with that charged by commercial lenders. If energy companies will invest their funds in MRIP, the interest rate on long term bonds may be well below the market rate, because the energy companies could also receive carbon offset credits.

Payment Schedule

Payment of principal and interest on the reforestation loan would be postponed until the trees are

harvested. A minimum payment of 50 % of net sales revenue would be required at all thinnings. The loan could be repaid in whole or in part at any time; but has to be paid in full by the end of 35 years.

Collateral

Collateral would be required to secure a reforestation loan under MRIP. If the *land is owned free and clear*, the *insured standing trees* could serve as collateral. (Note: We feel strongly that taking the trees instead of the land for collateral will substantially increase interest in the program). If there is an *existing first mortgage* on the land, the state would take a second mortgage on the *land and standing trees* provided the left over value is sufficient to secure the loan. A required appraisal to determine the value would be the landowner's responsibility. It is recommended that the lien on standing trees incorporate the steps taken by the Oregon Forest Resource Trust in addressing the issue of collateral (State of Oregon 1995). That is:

“The lien created is a general lien upon all forest products grown or growing on the forest land, whether standing on forest land, severed and remaining on the forest land, severed and transported to another area of sale or processing, or made into forest products on the forest land. If the forest product is severed and delivered to a purchaser or mill, the lien continues against the forest product and the lien also attaches to accounts receivable evidencing indebtedness of the purchaser or mill. The lien attaches to the accounts receivable on the date on which the forest land owner sells the forest products and relates back to the date on which the notice of lien was filed.”

Eligibility

Only non-industrial, private forest landowners who are residents of Mississippi would be allowed to participate in the program. Non-resident landowners would be eligible only if they are co-owners with a Mississippi resident. At least one co-owner would have to be a Mississippi resident at the initiation of a loan

Minimum Acreage

The land area reforested under the program would have to be at least 10 acres in size.

Lifetime Loan Cap

There would be a \$50,000 lifetime loan cap per forest landowner. If the cost of site preparation, planting and insurance were \$200 per acre for example, a total of 250 acres could be put into the program during a landowner's lifetime.

Insurance

Losses to seedling mortality, fire, wind and ice storms, insects and diseases, and theft would be covered through a self-insurance program administered by the State to cover 100 % of the value of the reforestation loan for the entire rotation. A one time, up front insurance premium would

be added to the reforestation loan.

Other State and Federal Reforestation Incentive Programs

The Mississippi Reforestation Investment Program could only be used in conjunction with the Mississippi Reforestation Tax Credit and the Federal income tax incentives for reforestation.

Program Administration

The Mississippi Forestry Commission would provide technical assistance to borrowers by helping them develop their reforestation and subsequent stand management plans, processing loan applications and making sure the plans are followed as prescribed. The Mississippi Department of Economic and Community Development would handle the record keeping and those financial activities related to making the loans. A trust should be set up to administer funds from external sources such as energy companies.

SOME RECOMMENDATIONS

While it would be open to all qualifying NIPF landowners, to have the greatest impact MRIP could target non-regenerators, many of whom are minorities and females. Hurdles to be overcome among the target group include: lack of interest, lack of trust in the government, lack of information, murky land titles, the relative size of the lending rate itself, and collateral requirements.

If MRIP is enacted into law and put into place, the State and its agencies should provide educational/outreach programs that will fully inform potential participants of how the program will work and the benefits they will receive, including tax incentives, the costs to be incurred, and the associated risks. A computer program that performs analyses and can be customized to an individual landowner's circumstances should be developed and made available through local extension and forestry commission offices; this would assist decisionmaking concerning entry into the program. The State also should consider seeking external sources of funds for MRIP from energy companies. There appears to be an opening window of opportunity to tie tree planting by NIPF landowners and the carbon thus sequestered to acquisition by energy companies of carbon offset credits. Energy companies could use the carbon offset credits as a way of compensating for their greenhouse gas emissions and, simultaneously, accrue interest on an MRIP zero-coupon bond.

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