

## Science and Technology for Sustainability Research Program

### Long-Term and Annual Measures

#### Long-Term Outcome Measures

As part of its comprehensive reviews, the BOSC will provide ratings of the program's progress toward each long-term goal (LTG).

Long-Term Goal	Measure	2007 Actual	2011 Target
LTG 1	Utility of ORD-identified and developed metrics for quantitatively assessing environmental systems for sustainability	N/A	Baseline <sup>1</sup>
LTG 2	Utility of ORD-developed decision support tools and methodologies for promoting environmental stewardship and sustainable environmental management practices	Exceeds Expectations	Exceeds Expectations
LTG 3	Utility of innovative technologies developed or verified by ORD for solving environmental problems and contributing to sustainable outcomes	Meets Expectations	Exceeds Expectations

<sup>1</sup> The BOSC will not rate the program on LTG 1 until the next review in 2011.

#### Bibliometric Analysis Measures

Through bibliometric analyses conducted every two years, the program assesses the extent to which the scientific community uses program publications. Specifically, the program measures the percentage of publications that are deemed "highly cited" (within the top 10% of papers most cited).

Measure	2005 Baseline	2007 Actual	2009 Target	2011 Target
Percentage of Science and Technology for Sustainability (STS) publications in "high impact" journals	30.4%	34.3%	35.3%	36.0%
Percentage of Science and Technology for Sustainability (STS) publications rated as highly cited publications	N/A	28.2%	29.2%	30.2%

#### Annual Output Measures

At the end of each fiscal year, the program reports on its success in completing its planned annual outputs (Annual Performance Measures).

Percentage of planned outputs delivered in support of STS's LTG 1, that decision makers adopt ORD-identified and developed metrics to quantitatively assess environmental systems for sustainability.

2000 Baseline	2001 Actual	2002 Actual	2003 Actual	2004 Actual	2005 Actual	2006 Actual	2007 Actual	2008 Actual
N/A	N/A	N/A	100%	N/A	N/A	N/A	N/A	100%

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Percentage of planned outputs delivered in support of STS's LTG 2, that decision makers adopt ORD-developed decision support tools and methodologies to promote environmental stewardship and sustainable environmental management practices.

<b>2000 Baseline</b>	<b>2001 Actual</b>	<b>2002 Actual</b>	<b>2003 Actual</b>	<b>2004 Actual</b>	<b>2005 Actual</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>
N/A	N/A	N/A	75%	78%	67%	100%	100%	100%

Percentage of planned outputs delivered in support of STS's LTG 3, that decision makers adopt innovative technologies developed or verified by ORD to solve environmental problems, contributing to sustainable outcomes.

<b>2000 Baseline</b>	<b>2001 Actual</b>	<b>2002 Actual</b>	<b>2003 Actual</b>	<b>2004 Actual</b>	<b>2005 Actual</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>
N/A	N/A	N/A	75%	29%	90%	94%	100%	100%

**Annual Efficiency Measure**

Based on recent National Academy of Sciences (NAS) recommendations on research efficiency measurement, this measure utilizes an approach similar to Earned Value Management.

Percent variance from planned cost and schedule.

<b>2003 Actual</b>	<b>2004 Actual</b>	<b>2005 Actual</b>	<b>2006 Actual</b>	<b>2007 Actual</b>	<b>2008 Actual</b>
N/A	-52.8%	-64.9%	-4.3%	1.1%	Data lag