

3.3. AGRICULTURAL ECONOMICS AND ENVIRONMENTAL POLICY

3.3.1 PREAMBLE

Degrees offered are M. AgSE and PhD. AgSE in Agricultural Economics and Environmental Policy with options in Production Economics, Resource and Environmental Economics, Agricultural Policy and Development, Agricultural Finance and Marketing. PhD. AgSE shall be by a combination of taught courses, seminar courses, supervised teaching and research. Every PhD student is expected to take and obtain satisfactory performances in all the following compulsory courses in addition to Seminars and Internship: M. AgSE is designed to combine sound knowledge of economic theory, entrepreneurship, planning, marketing, financing, monitoring and evaluation, and scientific methodologies with in depth understanding of sustainability science in training skilled professionals that can support private, public and international decision making and policy analysis on issues relating to livestock production and sustainable exploitation of natural resources.

3.3.2 PHILOSOPHY

The dearth of suitable manpower to manage Agro-industrial enterprises profitably and sustainably in the nation, informed the floating of the programme. It will thus be a bridge builder producing well-grounded products that will manage agro-industrial enterprises sustainably coupled with sound having sound knowledge on theory and practice. The philosophy of the programme is to train students to design, perform, lead, and implement economic research in Agricultural Economics and Environmental Policy. Holders of the Degrees would be [able to solve problems in the production, marketing, financing and sustainable management of resources including livestock and crop production systems](#)

3.3.3 OBJECTIVES

1. To produce sound and well informed managers of Agro-Industrial enterprises.
2. To produce graduates that will be sound in policy formulation and be asset in both public and private decision making.
3. To produce graduates that can be self-employed rather than job seekers.
4. To produce graduates that will formulate policy for sustainable agro-industrial production.
5. To produce graduates that will explore our natural resources sustainably.
6. [To produce highly trained professional graduates capable of solving agricultural and environmental challenges and problems facing countries in the region and Africa at large](#)

3.3.4 PROGRAMME STRUCTURE

The Masters Programme in Agricultural Economics and Environmental Policy is structured to have general center courses of 10 units, programme courses of 41 units, thesis (6 units), seminars (2 units) and internship (4 units) while the PhD programme is also structured to have general center courses of 10 units, programme courses of minimum of 28 units or maximum of 29 units, thesis (6 units), seminars (2 units) and internship (4 units).

M.AgSE

Programme is designed to provide the postgraduate students ability to manage Agro - industrial enterprises sustainably. Courses taken must be passed at 50% or higher grade before graduation.

The courses are as follow:

First Semester

Course Code	Title	Unit	Status of the course
AES 801	Advanced Microeconomics	3	C
AES 803	Statistical Theory and Analysis	3	C
AES 805	Agricultural Development	3	C
AES 807	Agricultural Production Economics	2	C
AES 809	Mathematics for Economists	2	C
AES 811	Financial Management and Accounting	2	C
AES 813	Policy in Environmental Decision Making and Agriculture	3	C
TOTAL		18	
Elective Courses			
AES 815	Integrated Economic Modeling and Sustainable Development	2	E
AES 817	Food, Health and Nutrition Economics	2	E
*FPV 821	Food Business Management and Entrepreneurship	2	E

*An elective course in Food Processing and Value Addition programme

Second Semester

Course Code	Title	Unit	Status of the course
AES 802	Advanced Microeconomics	3	C
AES 804	Econometrics	3	C
AES 806	Agricultural Policy Analysis	3	C
AES 808	Resource and Environmental Economics	3	C
AES 810	Research Methodology and Experimental Design	3	C
AES 812	Farm Planning, Monitoring and Evaluation	2	C
AES 814	Marketing & Agro-industrial Supply Chain Management	2	C
TOTAL		19	

Elective Courses			
AES 816	Applied Welfare Economics	2	E
AES 818	Organization & Management of Cooperative	2	E

Elective Courses

In addition to the core courses, students pursuing Masters Programme in Agricultural Economics and Environmental Policy are expected to take, and pass at 50% or higher grades, a minimum of four (4) units of elective courses selected from the following:

Seminar Courses, Internship and Thesis

In addition to the general courses and programme core and elective courses, students pursuing Masters Programme in Agricultural Economics and Environmental Policy are expected to develop and conduct a research to address some problems of major policy concern and/or of interests for the expansion of the frontier of knowledge in [in the production, marketing, financing and sustainable management of resources including livestock and crop production systems](#). In this pursuit, each student is expected to achieve satisfactory performance (50% or higher), in each of the following sequence of dissertation related/supporting courses:

Course Code	Course Title	Unit
ACE 893	Internship 1	2
ACE 894	Internship 2	2
ACE 895	Pre-data Seminar 1	1
ACE 896	Post-data Seminar 2	1
ACE 899	Thesis Defense	6
	TOTAL	12

Above courses (ACE 893, ACE 894, ACE 895, ACE 896) will be defended before CEADSE Board and students at the Centre, while the final dissertation (ACE 899) shall be defended before a Board of External and Internal Examiners.

All M. AgSE students are encouraged to follow the following schematic guide in the presentation of the various seminars and Dissertation defense.

First Semester of Year 1: Submission of Research Concept Note. This should be done within 6weeks of resumption to enable the Programme Leader appoint appropriate supervisory committee for the student.

Second Semester of Year 1: Presentation of Proposal Seminar. Thesis proposal should ideally be of no more than 30 pages, and should present Background Information, Problem Statements, Research Questions and/or Hypotheses, and Research Objectives in Chapter 1. A comprehensive Review of Literature should be in Chapter 2, while Chapter 3 should present the methodology.

First Semester of Year 2: Presentation of the Post-data Seminar. **Second Semester of Year 2:** Dissertation Defense

PhD. AgSE

First Semester

Course Code	Title	Unit	Status of the course
AES 901	Advanced Microeconomic Theory & Analysis	3	C
AES 903	Advanced Econometrics Methods	3	C
AES 905	Advanced Statistical Methods for Economists	3	C
AES 907	Advanced Natural Resources and Environmental Economics	3	C
AES 909	Advanced Quantitative Methods in Environmental Economics	3	C
TOTAL		15	

Note: Centre Core Courses (ACE 801 GES 801/GES 803) are compulsory for non ACE students in the first semester

Second Semester

Course	Title	Unit	Status of the course
AES 902	Advanced Macroeconomic Theory & Analysis	3	C
AES 904	Advanced Production Economics and Risk Management	2	C
AES 906	Research Methodology and Data Processing	3	C
AES 908	Advanced Mathematical Economics	3	C
TOTAL		11	
Special Elective Course			
*AES 910	Advanced Topics in Agric. Economics and Environmental Policy Analysis	1	E

Note: Centre Core Courses (ACE 802, ACE 804) are compulsory for non ACE students

* would be taken under each PhD student's Supervisory team with focus on the candidate's desired specialty area

Seminar Courses, Internship and Thesis

Course Code	Course Title	Unit
ACE 993	Internship 1	2
ACE 994	Internship 2	2
ACE 995	Seminar 1 (Pre-data)	1
ACE 996	Seminar 2 (Progress report)	1
ACE 998	Seminar 2 (Post-data)	2
ACE 999	Thesis Defense	10
TOTAL		18

Above courses (ACE 993, ACE 994, ACE 995, ACE 996, ACE 998) will be defended before CEADSE Board and students at the Centre, while the final dissertation (ACE 999) shall be defended before a Board of External and Internal Examiners.

All PhD. AgSE students are encouraged to follow the following schematic guide in the presentation of the various seminars and Dissertation defense.

First Semester of Year 1: Submission of Research Concept Note. This should be done within 6 weeks of resumption to enable the Programme Leader appoint appropriate supervisory committee for the student

Second Semester of Year 1: Presentation of Non-Thesis Seminar. The Non-Thesis seminar is first step for presentation of pre-data seminar by all PhD AgSE students. It should ideally be of no more than 30 pages, and should present Background Information, Problem Statements, Research Questions and/or Hypotheses, and Research Objectives in Chapter 1. A comprehensive Review of Literature should be in Chapter 2, while Chapter 3 should present the methodology. The essence of the non-thesis is for the student to be able to demonstrate their understanding on the model, theories and literature they intend to use.

First Semester of Year 2: Presentation of Proposal/Pre-data Seminar. This should be done alongside with the student Internship 1. Thesis proposal should ideally be of no more than 30 pages, and should present Background Information, Problem Statements, Research Questions and/or Hypotheses, and Research Objectives in Chapter 1. A comprehensive Review of Literature should be in Chapter 2, while Chapter 3 should present the methodology.

Second Semester of Year 2: Data collection, analysis, report writing and presentation of progress report

First Semester of Year 3: Presentation of the Post-data Seminar.

Second Semester of Year 3: Dissertation Defense

3.3.5 SYNOPSIS OF COURSES

AES 801: Advanced Microeconomics

Fundamental principles & tools of economic analysis; Price theory, theory of consumer behaviour, theory of production & costs with emphasis on applications in agriculture; general equilibrium; factor market equilibrium and the exchange economy; analysis; fundamentals of welfare economics.

AES 802: Advanced Macroeconomics

Essential macroeconomic tools, national income determination; circular flow of income and expenditure; aggregate consumption, saving and investment theory, classical price level determination, wage price dynamics: and growth theories, Keynesian employment, inflation and

public debt; business cycles and macroeconomic policy; role of nominal frictions within a New Keynesian/New Neoclassical framework and their implication for monetary policy

AES 803: Statistical Theory and Analysis

Sets and Probability, random variable and probability distributions, expectations, variance, moments and moment generating functions, special probability distributions, sampling theory and methods, Chebyshev's inequality, law of large numbers, central limit theorem, estimation theory, hypothesis testing (parametric & non parametric), analysis of variance, correlation and regression methods. Hands-on experience using Statistical Software in Data Analysis.

AES 804: Econometrics

Purpose and Methods of Econometrics; The Classical Least Square Regression Methods; Specification Tests, Structural Breaks & Dummy Variables; Violations of Basic Least Square Assumptions: consequences, diagnosis and remedies. Maximum Likelihood, Generalised Least Square and Instrumental Variable Methods; Multiple Equation Models; Limited Dependent Variable Models.

AES 805: Agricultural Development

Economic Growth and Economic Development: concepts, measurement and emerging issues including sustainability and wise use of ecosystem services. Agricultural growth and economic development; Models and theories of agricultural and economic development; approaches to agricultural development; Economic development with unlimited supplies of labour; impediments to progress in agriculture in developing countries; The Classical, Neoclassical and Endogenous growth models; Methods for analyzing costs and benefits of price supports, import restraints, and other policies for producers, consumers, and taxpayers.

AES 806: Agricultural Policy Analysis

The role of Agriculture in economic development of developing countries. Policy interventions in the Food and Farm Sectors in Nigeria as well as other developing and developed countries including their motivations, policy instruments and consequences for factor owners and related commodity markets. Historical treatment of governmental policies and programmes affecting agricultural policies in developing countries; Issues of agricultural policy: Agricultural policy process in Africa, policy analysts and researchers, political economy of agricultural policies, policy varieties and environmental stress. Agricultural policies of developing countries and analysis with respect to key sub-sectors; agricultural policy objectives and strategies for implementation. Agricultural policies and food security; economic information needed for policy decisions. National rural development policy and guiding principles: small scale versus large scale farms. Policy distortions, subsidies and rural employment generation; Cost-Benefit Analysis and Policy Analysis Matrix (PAM) as models for policy options and decisions with special reference to private and public agricultural projects.

AES 807: Agricultural Production Economics

Theories of production; agricultural production functions; resources returns in agriculture; agricultural cost and supply function; Optimization of production and farm planning under uncertainty; efficiency and innovation in agriculture. Fixed asset theory, dynamics and technical change.

AES 808: Resource and Environmental Economics

The course provides a graduate-level survey of the two prevailing contemporary themes in environmental economics: the measurement of the demand for environmental resources as input into benefit-cost analyses, and the design of incentive-based, cost-effective policy instruments to achieve environmental goals. Core topics include market failure, conceptual foundations for valuing changes in environmental quality, empirical applications of nonmarket valuation methods, and cost-effective market mechanism design for reducing pollution. Additional topics include information asymmetries and mechanism design for nonpoint source pollution, and international/global environmental issues.

AES 810: Research Methodology and Experimental Design

Discusses the research process and scientific method as applied in agricultural economics. Topics include problem identification, stating hypotheses, sources of data, sampling concepts and designs, methods of collecting data, questionnaire design and testing, field organization, and analysis of data. During the semester, each student develops a research proposal that may be associated with his or her thesis. Completely randomized designs randomized complete block design, lattice squares, factorial experiments, confounding variables. Analysis of data from animal production based research using statistical packages.

AES 809: Mathematics for Economists

Functions and equations (exponents, polynomials; geometric interpretation – graphs, slopes, intercepts; linear, quadratic and simultaneous equations will be reviewed); Derivatives and rules of differentiation; Calculus of multivariable (implicit functions, partial and total differentiation, optimization of multivariable functions, optimal growth models); Exponential and logarithmic functions (interest compounding and discounting); Matrix algebra (definition of terms and matrix operation - multiplication, addition and determinants - solving Simultaneous Linear Equations, input-output analysis); Linear programming (definitions and terms, graphic solution and the simplex algorithm approaches); Integration (definite and indefinite integrals), Taylor's theorem; Differential and Difference equations; Sequences and series; Set theory and basic logic; Basic games theory.

AES 810: Research Methodology and Experimental Design

Discusses the research process and scientific method as applied in agricultural economics. Topics include problem identification, stating hypotheses, sources of data, sampling concepts and designs, methods of collecting data, questionnaire design and testing, field organization, and analysis of data. During the semester, each student develops a research proposal that may be associated with

his or her thesis. Completely randomized designs randomized complete block design, lattice squares, factorial experiments, confounding variables. Analysis of data from animal production based research using statistical packages.

AES 811: Financial Management and Accounting

Principles and concepts of Financial Management of Farms and Agri-business firms. Strategies for acquiring and using capital resources. Business Records and Accounts. Book Keeping, Petty cash administrative. Reconciling financial records and Accounts. Creditor and Debtor Invoicing. Preparing and Processing Banking documents. Data entry for ledger, and sub-ledger compliance. Meeting an Auditing requirement. Preparing and Interpreting Financial reports including Budget, cash flow statement, trial balance, Profit and Loss Account and Balance Sheet. Finance and Insurance Institution.

AES 812: Farm Planning, Monitoring and Evaluation

Application of concepts and tools of Farm Business Management in Farm Planning and farm management. Feasibility Studies and Business Plan. Business Analysis and Planning. Interpretation and use of information for decision making in organizing and operating farm business to achieve goals. Methods of Farm Planning. Planning under risk and uncertainties. Farm Finance and Appraisal. Capital requirement in Agriculture. Monitoring and Evaluation. Cost Benefit Analysis. Time value of money, [Environmental Impact Assessment during farm planning](#).

AES 813: Policy in Environmental Decision Making and Agriculture

[The origin of the sustainability problems; Concepts of sustainability; Ethics, economics and the environment; Demand-Supply analysis of environmental problems; Linkages between Rural Economic Activities, Human welfare and the environment; Pollution control: targets; Pollution control Instruments: Voluntary programs, Direct controls, taxes on emissions; Other Financial Devices to Protect the Environment: Subsidies and Emission permits \(Emission offset programme; Bubble Concept Programme\); Emission taxes versus Direct Controls; Criteria for choosing among types of policies for environmental decision making and agriculture; Integrating environmental concerns into agricultural policies; International environmental problems; European Union Regulations with increased influence on farming activities; Project Appraisal: Cost-Benefit Analysis, Valuing the environment; Irreversibility, risk and uncertainty.](#)

AES 814: Marketing & Agro-industrial Supply Chain Management

Marketing Concepts. Marketing Mix. Industrial Organization. Competition for Agricultural Products in Domestic and Foreign Trade. Current development affecting market structure including effect of contractual agreement. Vertical Integration. Government Policy and Regulation. Traditional Livestock Supply Chain. The global Agrifood system; The traditional supply chains & its “bullwhip” effect; Food supply chain networks; Supply Chain Management and Logistics; Supply chain redesign; Case Studies of Supply Chain Management in the Agrifood Sector; Critical Success Factors in Supply Chain Management.

AES 815: Integrated Economic Modeling and Sustainable Development

Understand some of the complexities of interdisciplinary policy problems, particularly in the areas of sustainable development; Integrated modeling approaches to real-world interdisciplinary economic problems; description of Microsoft Windows environment and an application of MS Office such as Word, Excel and PowerPoint; multivariate forecasting models; computer analysis of linearized and nonlinear models using Excel and General Algebraic Modeling System (GAMS); use of Agent-Based Modeling (ABM).

AES 816: Applied Welfare Economics

Review of measures of household welfare, willingness to pay, and notions of Pareto optimality, aggregate welfare and market failure. Practical methods of comparative static analysis of the effect of public policies on consumer and firm behaviour, and on market equilibrium. Theory of externalities and welfare implications of market versus non-market allocation of public goods with emphasis on Livestock. Applications include evaluation of such policies as taxes, price supports, quotas, pollution controls, environmental damage liability, and intellectual property rights.

AES 817: Food, Health and Nutrition Economics

This course explores economic aspects of food safety, quality and nutrition and the ways in which economics can aid understanding of food safety, quality and nutritional issues. Food and Nutrition Security: Concepts, Measurements and Health Links; Environmental and Public Health Implications of Industrial Food Production; Social, Economic & Policy Consideration in Food Production; Cultural & Political Considerations in Food Consumption; Sustainable Food Production System; Public Health Management.

AES 818: Organization & Management of Cooperative

Nature, Type of Cooperatives as a Business Enterprises. Cooperative Movement and Laws in Nigeria. Problems and Prospects in Organizing and Managing Cooperative. Leadership Conflict Resolution and Financial Management.

FPV 821: Food Business Management and Entrepreneurship

Management peculiarities of food industries. Marketing concept and marketing mix. Food business law. Preparation of feasibility studies for food – based industries. Business analysis, financial and cost analyses, technology selection, marketing analysis, product management, food safety and regulation, waste management in food industries, proposal preparation, general management and project management, management of information system.

AES 901: Advanced Microeconomic Theory & Analysis

Consumer theory, Indirect utility, expenditure function and duality theory, revealed preference, measurement of household welfare due to price changes, consumer behavior under rationing, production and cost function, profit function and duality; theory of the firm and modeling, game theory, theory of market structure, Economics of regulation and deregulation, Economic choice

under uncertainty, equilibrium analysis, review of methodology for economic analysis: direct and indirect functions; primal-dual approach; distance function; Static Econometric Models with Risk Aversion and Risk Neutrality; Models of Price Transmission, Time Series/Cointegration Models of Vertical and Spatial Price; Models of Choice in Dynamic Settings. Special topics in consumer theory such as labour supply, household production and intra-household allocation and welfare

AES 902: Advanced Macroeconomic Theory & Analysis

Macroeconomic modelling to closed and open economy, Consumption, Saving and Income Determination, investment and capital; the accelerator theory of investment; the marginal efficiency hypothesis and the relationships between Marginal Efficiency of Capital (MEC) and Marginal Efficiency of Investment (MEI), the IS-LM Framework, inflation and unemployment; contemporary macroeconomic theory and policy, economic growth and agricultural growth models, growth rate and environmental quality as well as growth theories, real business cycle models, dynamic analysis in general equilibrium models price level within classical, neoclassical, and contemporary frameworks, macroeconomic approaches to modeling recessions, inflation and unemployment. Review of empirical evidences on the macroeconomics of agriculture.

AES 903: Advanced Econometrics Methods

Review of the classical least square regression methods; heteroskedasticity, autocorrelation and the generalized least square methods; endogeneity, instrumental variables (IV) and two stage least square (2SLS) methods; seemingly unrelated regression (SUR); the maximum likelihood estimation method; nonlinear regression techniques; random regressors and moment-based estimation; Limited Dependent Variable Models; Simulation methods including parametric and nonparametric bootstrap methods.

AES 904: Advanced Production Economics and Risk Management

Components, assumptions, characteristics, short commings, estimations and economic interpretation of production functions such as linear, Spillman -Cobb Douglas, quadratic, multiplicative (power) functional forms - Translog, and transcendental functional forms -CES, production functional forms. Concepts of homogeneity, homotheticity, APP, MPP, elasticities of substitution and their economic relevance. Conceptual and empirical issues in specification, estimation and application of production functions- Analytical approaches to economic optimum with production function analysis - input use behaviour, Decision making with multiple inputs and outputs, principles and importance of duality theory correspondence of production, cost, and profit functions, Estimation of cost function and interpretations, Factor demand (shares) estimation methods, Optimal product and input choice under multi-input and product enterptice settings, Estimation of factor shares from empirical functions estimated-Estimating production functions incorporating technology changes: Decomposition analysis and incorporation of technology- Estimation of efficiency measures- Stochastic, probabilistic and deterministic frontier production functions, Risk programming - MOTAD-Quadratic programming-Simulation models for agricultural production decisions-Goal programming - Weighted, lexicographic and fuzzy goal

programming-Compromise programming, Economic efficiency in agricultural production - technical, allocative and economic efficiency, measurement -Yield gaps analysis, Concepts, and measurement of Risk and uncertainty in agriculture, Assumption of Risk Analysis in Agriculture, Strategic risk management (different steps in managing risk), agricultural produce (crop) insurance, Incorporation of risk and uncertainty in decision making- risk and uncertainty and input use level-risk programming. Simulation and programming techniques in agricultural production, Multiple Course Objective Programming - Goal programming and Compromise programming - applications.

AES 905: Advanced Statistics Methods for Economists

Review of foundational concepts and theories underlying sampling, statistical estimation and decision. Sampling and experimental approaches. Statistical abstractions, probability distributions and modelling, including additive error models, models based on response distribution, multiple random component models and stochastic processes. Statistical estimation and inference methods, including estimators based on sample moments, least squares, likelihood functions (maximum, modified and false likelihoods), and parametric bootstrap. Model assessment. Bayesian analysis and simulation methods. Hands-on experience working with statistical software and procedures based on various statistical methods.

AES 906: Research Methodology and Data Processing

Types of research, research process, research design, methods of data collection and testing, statistical methods used in conducting research and program evaluation; legal and ethical issues in conducting research, data processing file management and organization, components of data processing, methods of data processing, application of statistical software and packages such as Statistical Package for Social Sciences (SPSS), EXCEL, Access, STATA, statistical software (R), D-BASE, SAS, Matlab, E-Views - Statistical, forecasting, and modeling tools; GAMS or GEMPACK software systems

AES 907: Advanced Natural Resources and Environmental Economics

Introduction to Natural Resource and Environmental Economics – A Review; The origin and concept of sustainability; Welfare economics and the environment; Pollution control: targets; Pollution control instruments; International environmental problems; Project Appraisal: Cost-benefit analysis; Valuing the environment; The efficient and optimal use of natural resources; The theory of optimal resource extraction: non-renewable resources; Renewable resources; Forest resources.

AES 909: Advanced Quantitative Methods in Environmental Economics

Natural resources - definition - characteristics and classification. Stock dynamics of renewable and non-renewable resources. Equation of motion for renewable and non-renewable resources. Fundamental equation of renewable resources and their derivations. Estimation of Growth curves and stock of fishery and forest resources. The role of time preference in natural resource use. Simple two-period model of optimal use of renewable and non-renewable resources. Advanced models of optimal resource use - Static Vs. dynamic efficiency in natural resource use,

Applications of dynamic programming and optimal control. Economics of groundwater use - optimal extraction of groundwater. Analytical and numerical solutions for optimal inter-temporal allocation of natural resources. Optimal harvesting of single rotation and multiple rotation forests. Optimal management of fishery. Property rights in natural resources and their implication for conservation and management of natural resources. Multi-period dynamic efficiency - Using software in solving dynamic natural resource harvesting problems. Using analytical solution procedures for solving natural resource management problems -Optimal control. Management of common property natural resources - Institutional arrangements for conservation and management of common pool fishery, groundwater and forestry resource. Resource scarcity - Natural resource degradation - Poverty and resource degradation - Natural resource accounting - Pricing and valuation of natural resources - Natural resources policy. Environment in macroeconomic modeling - Meta-analysis, economic valuation and environmental economics - Multi-criteria methods for quantitative, qualitative and fuzzy evaluation problems related to environment - Input output analysis, technology and the environment - Computable general equilibrium models for environmental economics and policy analysis. Choice Experiments and, environmental valuation approaches/Methods and emperics.

AES 908: Advanced Mathematical Economics

Brief review of functions, equations, derivatives and rules of differentiation; Calculus of multivariable (constrained optimization - the Langragian multiplier); differentiation of exponential and logarithmic functions; matrix algebra; mathematical programming; definite integral and probability (probability density function and normal distribution); Second-order differential and Difference equations; control theory and static optimization theory (Theory of competitive markets, existence and stability analysis).

AES 910: Advanced Topics in Agric. Economics and Environmental Policy Analysis

Significant literature in selected fields of agricultural, resource and environmental economics and policy to provide a broad background for conducting research in these fields.