



FIA Clubs and EcoDriving

Paris, 23 November 2007

Fédération Internationale de l'Automobile

Umbrella organisation of Automobile Clubs

Governing body of Automotive Sport

160 Automobile and Touring Clubs

100 Million Members

Representative of the Mobile Consumer



Outline

Activities

Methodology

Consumer advice

Results

FIA campaigns

Sources

Spain



Japan

Canada



New Zealand

South Africa



Ecuador

Austria

Germany

Activities

Training

Campaigns

Showcasing

RACC's activities

- EcoDriving courses for members and wider community
- Strategic partnership with Insitituto para la Diversfificacion y Ahorro de Energia (IDAE)
- More that 10,000 courses conducted
- Education programmes, for business and individual
- Cooperate training partnerships at various levels including: IKEA and Commune of Madrid



JAF Poster campaigns

- (left) “Anyone can do Eco 10 drive”
- (middle) “If global warming increases, what would happen to Japan?”
- (right) “Do you know the amount of annual emission of carbon dioxide per vehicle?”



JAF Magazine



トヨタ自動車は、今年から「トヨタ自動車 交通安全推進員」を養成し、各地で交通安全講習会を開催しています。交通安全推進員は、交通安全の啓蒙活動や、交通安全講習会の開催などに活躍します。

お問い合わせ・お申し込み

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交通安全講習会では、交通安全の啓蒙活動や、交通安全講習会の開催などに活躍します。交通安全推進員は、交通安全の啓蒙活動や、交通安全講習会の開催などに活躍します。

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JAFの運転講習会で自分の運転を見直してみませんか?

JAFが主催する運転講習会。安全運転や、最新の交通の常識などを学べます。今年も各地で開催するさまざまな運転講習会。あなたも参加してみませんか?

運転のクセを直してきます

シニアドライバースクール

シニアドライバースクールは、高齢ドライバーの運転クセを直すための講習会です。安全運転や、最新の交通の常識などを学べます。今年も各地で開催するさまざまな運転講習会。あなたも参加してみませんか?

JAFユーザーテスト(4月1日実施)の実車審査テストを公開します!

JAFは、ユーザーテスト(4月1日実施)の実車審査テストを公開します! 安全運転や、最新の交通の常識などを学べます。今年も各地で開催するさまざまな運転講習会。あなたも参加してみませんか?

お引越しの際はJAFへの住所変更も忘れずに

JAFへの住所変更は、お引越しの際に行ってください。住所変更の手続きは、JAFのホームページから行うことができます。

住所変更のお届けはこちらへ

●JAF携帯サイト
TEL: 0565-21-1111
SMS: 0565-21-1111
Yahoo!アプリ

●JAFのホームページ
http://www.jaf.or.jp

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NZAA Driver Training Courses

Largest driver training business in New Zealand

Included EcoDriving training in Defensive Driving Courses

Available to members, the public and to corporate with fleet vehicles

All employees with a company provided vehicle (including road service) trained



AASA Campaigns – EcoDrive Showcase

1. Driving over set 60,6km route
Untrained 15% less fuel efficient
30 000km a year saving of R1 577
2. Untrained driver 9,75l of petrol per 100km
Trained expended 7,42l per 100km
30 000 km a year saving of R4 000

ANETA Training

Special courses for private companies , courses and demonstrations were conducted with the support of Peugeot Ecuador.

ANETA has 41 driving schools in the country.



Trains over 10,000 people a month between 16 and 75 for driver's license.

1,000 instructors and 500 vehicles for these purposes

Methodology

Partnerships

Assessments

Courses

Teaching material

CAA's goals and motivations

Partnership with Pollution Probe,
together campaigns directed at
federal government



80% of Canadians have a vehicle, 81% of work
journey's are conducted by car

Over half surveyed are very or extremely
concerned about the environment

AASA Environmental impact assessment (I)

Objective

To create awareness about environmental protection in partnership with the City of Johannesburg department of transport.

To educate motorists about their contribution towards eco-driving

Target

AA Members and general motoring public

Measure

Test results showing air pollution caused by cars in the City of Johannesburg

Workshops and press releases educating our members and general motoring public about eco-driving

AASA Environmental impact assessment (II)

Focal Areas

Environmental Protection

Eco-driving

Communication

To AA members and general motoring public through media

Project duration

From 2008 and on-going

Budget

R400,000

RACC Course Structure

- Participants drive under normal conditions
- EcoDriving theories are taught
- Participants watch a demonstration
- Theory is put into practice
- Saving measured
- Certificates awarded

Partnership programmes

- Madrid: Comunidad Autónoma de Madrid - Plan Azul
- Cataluña: ICAEN (Generalitat de Cataluña)
- Valencia: AVEN (Agencia Valenciana de la Energía)
- País Vasco: EVE (Ente Vasco de la Energía)
- Navarra: CRAN (Centro de Recursos Medioambientales de Navarra)
- Islas Baleares: Gobierno de las Islas Baleares
- Andalucía: AUSSA (Aparcamientos Urbanos de Sevilla) y EGMASA.
- Comunidad de Castilla y León: Junta de Castilla y León



The JAF Teaching kit



Eco Driving Training Tool Kit contains:

- DVD “Easiest Guide to Eco Driving” (about 15 minutes)
- Trainer’s manual ■Textbook for trainees
- CD-ROM (above manual and textbook in PDF format)

öAMTC Partners

PostBus

Kerschner

Maierhofer

Morawa

Petschl

IVB

Höpperger

Coca Cola



Hödlmayr

Glettler

Wopfinger

SDL

Müller

MVB

Blum

XXLutz

Introduction to Driving Schools

As of march 2006 included in driver schools

Eight workshops for instructors:

- Contribute to improve air quality
- Reduce fuel costs
- Apply the model of education for students (driver schools)
- Multiply knowledge to other trainers and those who join in the future.

Consumer Advice

Tips for EcoDriving

Advice on global approach

Vehicle maintenance

JAF 10 tips for EcoDriving

1. Avoid Idling
2. Check tire pressure
3. Avoid excessive weight
4. No need to heat engine
5. Accelerate gently
6. Concentrate on whole traffic situation
7. Use engine braking
8. Consider other transport
9. Use air conditioning sparingly
10. Plan journeys

1. 不要なアイドリングはやめましょう

30分間以上アイドリングでエンジンを動かさず、燃費の悪化や排気ガスによる大気汚染の原因となります。アイドリングを減らすことで、燃費の悪化を防ぎましょう。



6. 車間距離は余裕をもって

車間距離を詰めることで燃費が悪化し、燃費の悪化や排気ガスによる大気汚染の原因となります。余裕を持って車間距離をとり、燃費を向上させましょう。



2. タイヤの空気圧をチェックしましょう

規定空気圧からおよそ1割（1気圧）低減した状態で300kmの走行で約2.5Lの燃費増加（約1割）の燃費悪化が確認されています。タイヤの空気圧を定期的にチェックし、規定空気圧に調整しましょう。



7. エンジンブレーキを積極的に使しましょう

減速する際は、アクセルを早めに戻してエンジンブレーキを積極的に使ってください。エンジンブレーキを積極的に使うことで、燃費の悪化を防ぎましょう。



3. 不用な荷物を降ろしましょう

30kgの荷物を積みこんで走行すると、300kmの走行で約2.5Lの燃費増加（約1割）の燃費悪化が確認されています。不要な荷物を降ろし、燃費を向上させましょう。



8. 駐車場所はよく考えて

交通の混雑を招くような駐車場所は避け、駐車スペースが広く、交通の混雑を招かないような場所を選んで駐車しましょう。



4. 暖機運転は適切に

暖機運転は必要に応じて適切に行ってください。暖機運転を必要以上に長く続けると、燃費の悪化や排気ガスによる大気汚染の原因となります。必要に応じて適切に行ってください。



9. 夏のカーエアコンの設定は1度高めに

カーエアコンを使うと燃費が悪化します。設定は、車内を快適に保つことができ、燃費の悪化を防ぎましょう。



5. 急発進、急加速はやめましょう

燃費の悪化、急加速は燃費の悪化の原因となります。急発進、急加速を避け、燃費を向上させましょう。



10. 計画的にドライブをしましょう

計画的にドライブをすることで、燃費の悪化を防ぎ、燃費を向上させましょう。



人と環境にやさしいクルマ社会をめざして。



【JAFカーシェアリング】JAFカーシェアリングは、JAFが主催するカーシェアリングサービスです。燃費の悪化を防ぎ、燃費を向上させましょう。

NZAA recommendations

Keep your fuel costs down

Avoid short trips

Drive smoothly

Look ahead

Corner smoothly

Make hills work for you

Love your car!

Watch your air con

Keep your load down

Reduce idling time

Don't speed



The CAA three step approach “Eco-Mobility”

1. Eco-driving



2. Better, Safer Roads and Highways

3. Improved Automobile Fuel Efficiency

CAA's recommendations

- Make Eco-Driving a national objective and lead the development of Education and awareness programmes
- Increase Eco-Driving options by supporting the expansion of walking, cycling, car pooling, car sharing and public transportation infrastructure
- Introduce economic incentives to encourage and sustain consumer demand for more fuel efficient automobiles

AASA Tips on driving style

Avoid accelerating harshly from stops

Avoid erratic acceleration; try to keep accelerator in the same position

Keep engine revs as low as possible

Use the highest gear possible for the conditions

Decelerate early for stops.

Look and plan well keep the vehicle moving.

Maintain a minimum three-second following distance.

Avoid unnecessary idling of engine.

Vehicle is most efficient when engine produces the most torque



AASA Tips for the vehicle

Ensure the vehicle is regularly serviced and properly tuned. Fuel mixture settings, ignition timing, spark plugs and the air filter play a major role in ensuring that an engine runs efficiently.

Correct tyre pressures. Under inflated tyres cause excessive fuel consumption.

Correct wheel alignment. Fuel is wasted if wheel alignment is not set correctly. (This also has an adverse effect on tyre wear).

Brakes should not be binding and all wheels should rotate freely.

Keep windows closed. This creates less wind drag.

Wide tyres cause more resistance at speed resulting in more fuel being used and less top speed.

A highly polished vehicle creates less wind drag.

Avoid leaving heavy objects in vehicle unnecessarily.

Drive an aerodynamic vehicle.

Use of air conditioner increases fuel consumption slightly.

Results

Press coverage

Numbers trained

Fuel Saving

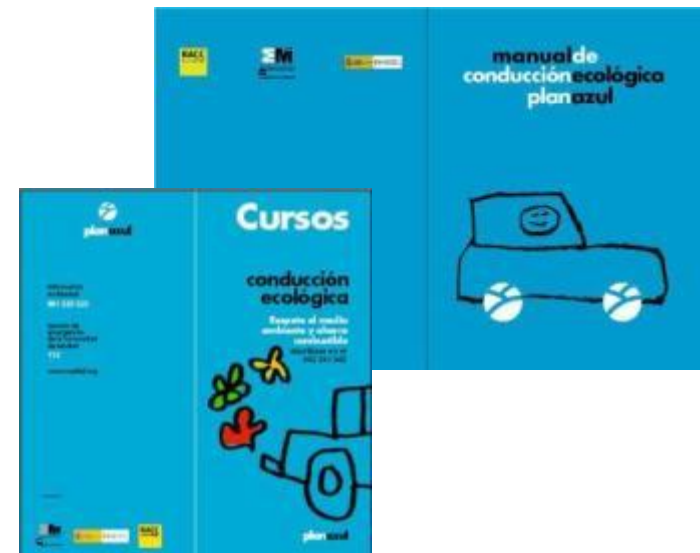
Case study – Plan Azul

1,187 registered for free courses 849 took the test

The average saving on fuel was 13.5% and average speed increased

92% satisfaction

93% felt advice was practical



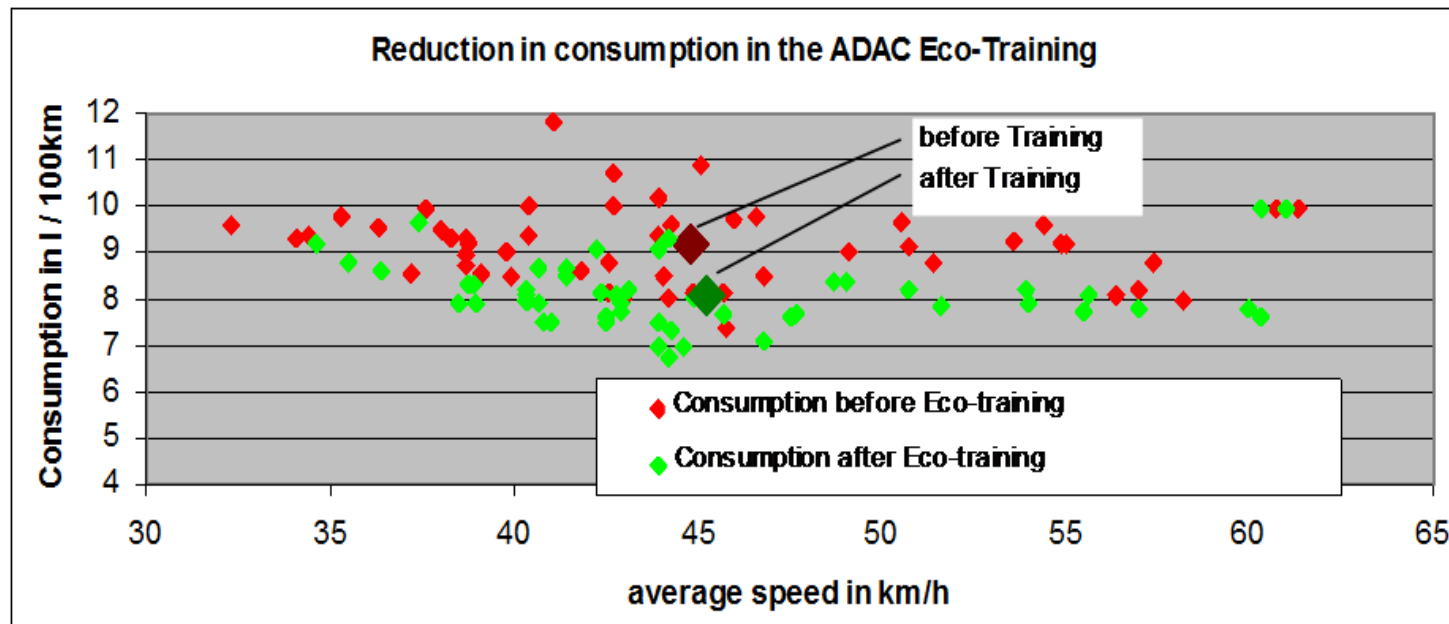
JAF Results

- Eco training (skill practice and counseling)
number of programs conducted:14, total participants:145
- Eco training short version (skill practice)
number of programs conducted:16, total participants:278
- Eco driving workshop (classroom lecture)
number of programs conducted:266, total participants:12,113
- Driving workshop (classroom lecture)
number of programs conducted:167, total participants:278



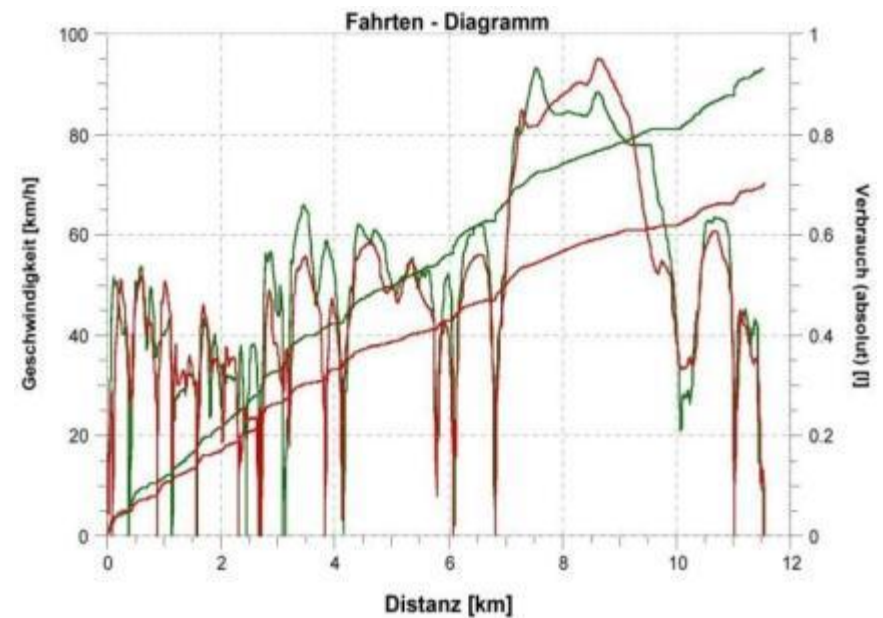
ADAC Test

Driver Training can reduce fuel consumption and CO2 emissions



ADAC Test Results

	1st drive	2nd drive	Difference	
Driving Time	21:26 min.	22:28 min.	1:03 min.	4.80 %
Distance	11.52 km	11.55 km		
Ø revs	1868 1/min	1294 1/min	574 1/min	+ 30.73 %
Gear shiftings	93	138	45	+ 48.39 %
Ø Speed	33.50 km/h	32.00 km/h	-1.50 km/h	-4.48 %
Ø Consumption	8.07 l/100km	6.08 l/100km	-1.99 l/100km	-24.66 %
Consumption (abs.)	0.93 l	0.70 l	-0.23 l	-24.47 %
CO2 emission	2.419 kg	1.827 kg	-0.592 kg	-24.47 %



öAMTC Test Results

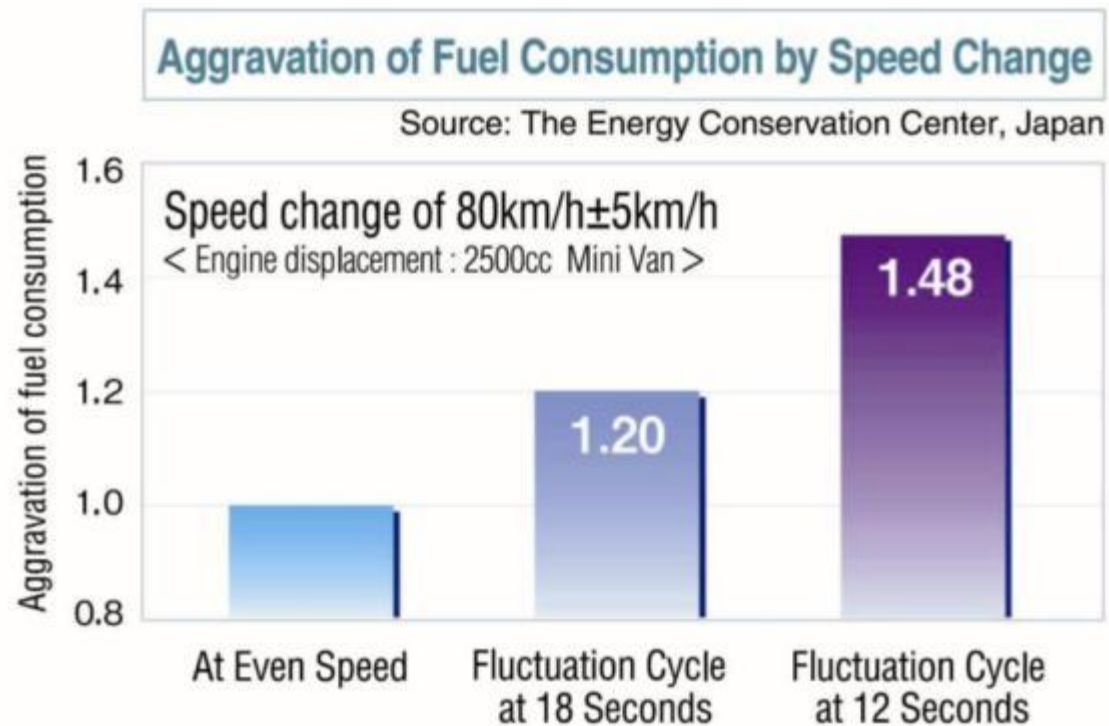
Possible consumption reduction
Total ca. 3.500 TN

consumption reduction with a saving

of 5,5%

4.000 000 liter

Example of JAF test of each point



JAF Test on saving post training

Effect of Eco Drive Management on the Average Fuel Consumption

My fuel consumption has improved this much!

Source: "JAF Mate" Magazine, March 2005 issue

Test subjects	A Female in her 20' s with 10 years of driving experience	B Female in her 20' s with 6 months of driving experience	C Male in his 50' s with 5 years of driving experience
Comments	"I' ve been very careful not to make the usual 'whirring'"	"I used to watch the vehicle just in front, but I' ve tried to pay attention to the several vehicles ahead."	"I' ve tried to drive without pressing the accelerator and brakes as much as possible."
Before they have acquired 'Eco Drive Management'	15.4km/ℓ	15.6km/ℓ	15.5km/ℓ
↕	11.7% UP!	13.5% UP!	15.5% UP!
After they have acquired 'Eco Drive Management'	17.2km/ℓ	17.7km/ℓ	17.9km/ℓ
How much saving would have been made over one year?	¥7,475 (€53.4) (\$63.5)	¥8,366 (€59.8) (\$71)	¥9,515 (€68) (\$80.8)

*1 The fuel consumption is calculated with the data derived from the drive covering the distance of 54km including about 15km of motorway by TOYOTA Vitz (1000cc).

*2 €1 = ¥140, US\$1 = ¥117.8 as of February 16, 2006

FIA Response

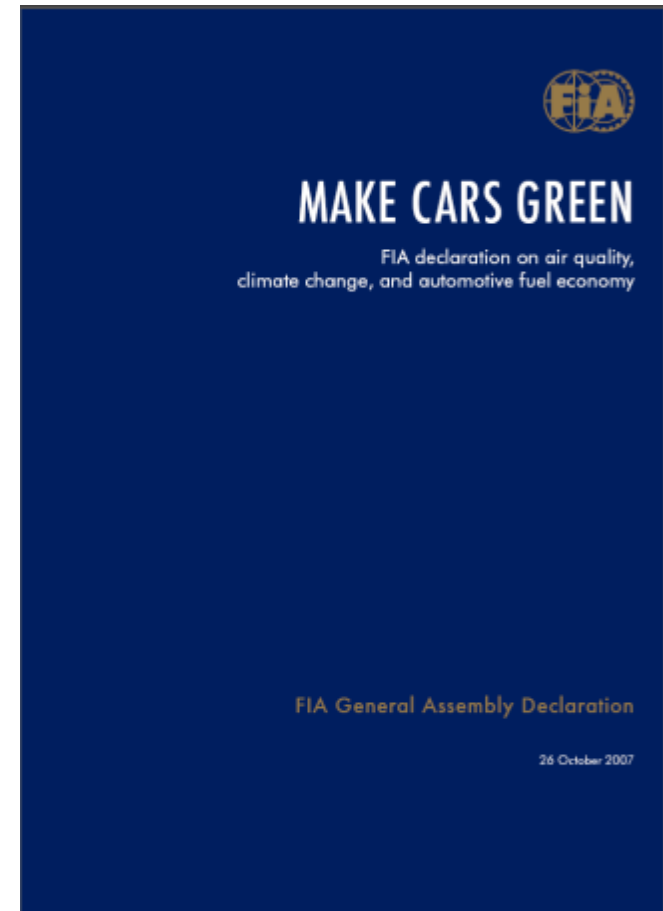
Make Cars Green

Leaflet Campaign

Make Cars Green

Recommendations:

- Government actions
- Our commitments



10 Points for Greener motoring

- 1. Buy Green**
- 2. Plan your journey**
- 3. Check tyre pressures frequently**
- 4. Reduce loads and avoid the need for roof racks**
- 5. Don't warm up your engine before starting off**
- 6. Use air conditioning only when necessary**
- 7. Accelerate gently and keep your speed constant**
- 8. Use engine braking**
- 9. Don't idle your engine**
- 10. Offset your CO₂ emissions**



FIA Communications